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Report to *Exhibit 43*
The President
and the Secretary of Defense
on the
Department of Defense
BY THE
BLUE RIBBON DEFENSE PANEL
1 July 1970

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Defense for Peace

Report to
The President
and the Secretary of Defense
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Department of Defense

BY THE
BLUE RIBBON DEFENSE PANEL

1 July 1970



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BLUE RIBBON DEFENSE PANEL
WASHINGTON, D. C. 20301

July 1, 1970

My dear Mr. President:

It is my honor to submit to you herewith the Report of the Blue Ribbon Defense Panel appointed by you and Secretary of Defense Melvin R. Laird last year.

As you know, you gave the Panel a very broad Charter to study the entire organization, structure, and operation of the Department of Defense -- but not questions of broad national policy within which the Department operates. In order to get a fresh look, you also selected members for the Panel who were generally unfamiliar with the operations of the Department.

We found the assignment to be both broad in scope and massive in detail, and to hold the potential for an important contribution by the Panel. This made your one year deadline for submission of our Final Report a very tight one indeed. We found it impossible to cover in depth many matters that we thought merited study, so we necessarily had to confine our principal recommendations to basic matters. We are confident that the recommendations we do make are both significant and well-substantiated. We have pointed out other areas where we believe further study would be fruitful -- much of which can probably be undertaken within the Department of Defense.

Despite this time pressure, we realized the urgency of our assignment, and pressed to have our Report submitted on the date you set a year ago -- namely, July 1, 1970. As this deadline approached, we realized what could not have been anticipated when we were appointed, that this is a particularly sensitive period with regard to the environment in which the Department of Defense in general, and the military in particular, operate. However, as our Report does not enter the field of national policy, but only makes recommendations we believe will cause important improvements in the effectiveness of the Department of Defense, we hope it will be accepted by all as a timely and constructive contribution, and will not be used by anyone to exacerbate present tensions and differences of opinion.

I would like to add a personal note. From my intensive, year-long exposure to our military and civilian leaders in the Department of Defense in Washington, and to our fighting men in Europe, the Mediterranean, and Southeast Asia, I have been deeply impressed -- and this applies both to the Officers and the Enlisted Men -- with their competence and their dedication to duty, as they see it. The Panel found many things it believes should be corrected, but it believes, and I agree, that many of the difficulties result from the structure of the Department of Defense itself, which almost inevitably leads people into "adversary" relationships rather than toward cooperation in the interests of the Department -- and the nation -- as a whole. It also leads to reliance on the workings of "The Bureaucracy", rather than individual initiative. I feel sure that many fine military officers feel the same way, and do not look with enthusiasm to assignments in the Washington area.

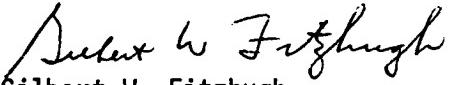
I hope the Panel's recommendations will not be considered criticisms of individuals, but will help to restructure the Department and "The Bureaucracy" so that the talent and dedication of these fine people both military and civilians -- can be unleashed and redirected to accomplish more effectively the basic objectives of the Department of Defense and the Nation, in the manner most helpful to you and the Congress.

Finally, I would like to express to you my appreciation for the dedicated work of the Panel members. They approached their assignments with dedication to accomplishing a worthwhile objective. The attendance at Panel meetings was unusually high and each member made valuable contributions and carefully considered the entire Report, through many long sessions and drafts. We all regret that Dr. Marvin Goldberger and Dr. Martha Peterson found it necessary to resign from the Panel for personal reasons, but each made valuable contributions while they served as members.

Without the hard work of a fine staff, we naturally could not have accomplished our assignment. My thanks go to each one of them.

I know all my colleagues on the Panel join me in expressing to you our appreciation for giving us the privilege of undertaking this important assignment at this critical period in our Nation's history.

Respectfully yours,


Gilbert W. Fitzhugh
Chairman, Blue Ribbon
Defense Panel

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The White House

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PREFACE

The Blue Ribbon Defense Panel was appointed by the President and the Secretary of Defense in July 1969, and given the following broad Charter, with instructions to submit its Final Report by July 1, 1970:

The general scope of the Panel is to study, report and make recommendations on:

- (1) The organization and management of the Department of Defense, including the Joint Chiefs of Staff, the Defense Agencies and the Military Services, as it affects the Department's mission performance, decision-making process, the command and control function and facilities, and the coordination with other governmental departments and agencies, with emphasis on the responsiveness to the requirements of the President and the Secretary of Defense.
- (2) The Defense research and development efforts from the standpoints of mission fulfillments, costs, organization, time and interrelation with the scientific and industrial community.
- (3) The Defense procurement policies and practices, particularly as they relate to costs, time and quality.
- (4) Such other matters as the Secretary may submit to it from time to time.

It is important to note that, while the Charter is very broad as to the Panel's function in the fields of structure, organization, and operating procedures of the entire Department of Defense, it excludes considerations of broad national policy. The Panel has endeavored to hew closely to this line.

We were told that this is the first broad-scale study of the Department of Defense in many years - in fact since the two Commissions on Organization of the Executive Department of the Government chaired by former President Herbert Hoover.

We decided to approach our assignment with the same broad objectives as stated in the Hoover Commission Report, namely:

- "(1) That the primary objectives of the National Security Organization are to preserve the peace, but that it must at all times be ready and able, promptly and effectively, to marshall all of our resources, human and material, for the protection of our national security.
- "(2) That civilian influence must be dominant in the formulation of national policy and that civilian control of the military establishment must be clearly established and firmly maintained.
- "(3) That the Nation is entitled to the maximum possible return for every dollar of military expenditure.
- "(4) That military efficiency - in other words, readiness for war - must be the fundamental objective of the National Military Establishment.

"(5) That elimination of wasteful duplication is essential to good government, but that the preservation, within sound limits, of a healthy competitive spirit and of service pride and tradition are basic to progress and morale."

Because of the vast scope of the operations of the Department of Defense, the Panel divided itself into four sub-committees, as follows:

(1) Organization and Personnel Management.

(2) Management of Materiel Resources (including research, development, procurement and management of weapons and supplies) planning, programming, budgeting, and similar procedures.

(3) Military operations, intelligence, communications, automatic data processing.

(4) Conflicts of interests, contract compliance, domestic action, equal employment opportunity, etc.

The Panel interviewed many witnesses in depth, and the sub-committees many more. It made a functional survey of the Defense headquarters organizations in the Washington area covering some 1,600 organizational elements to elicit information on the actual operation of and interface between units of the Department of Defense. It also sent a questionnaire to a large number of people outside the Department of Defense who we thought might wish to give us the benefit of their thinking. We enjoyed a remarkable response, with answers ranging from a page to dozens of pages of detailed suggestions.

The Panel members and the staff carefully reviewed many earlier reports of studies of the Department of Defense, and many visits were made to important elements of the Department outside the Washington area. Members representing sub-committees (3) and (4) visited a number of military Commands in Europe, the Mediterranean, and Southeast Asia, to see how policies determined at Washington Headquarters were carried out in the operational units.

While the members of the Panel have considered carefully the entire report, this does not necessarily mean that there is complete agreement with every detail of each recommendation or statement. Except where otherwise noted, however, there is agreement with the substance of every important conclusion and recommendation. The nature of the general agreement and the extent of incidental disagreement are those to be expected when members of a Panel individually have given serious thought to a major and complex problem, and have sought to achieve a joint resolution in furtherance of the Panel's task as a deliberative body.

A concurring statement by Dr. George Stigler, and dissenting statements by Mr. Robert C. Jackson and Mr. Wilfred J. McNeil, appear immediately following Chapter VI. Mr. Lewis Powell has indicated he may wish to submit a supplemental statement on areas not addressed by the Panel's Report.

The Panel had the benefit of the voluntary assistance of many individuals in private industry, whose services were requested by the Panel because of their particular knowledge in various specialized areas. It especially wishes to express its thanks to them and to the companies who loaned their services.

The Panel also wishes to extend its deep appreciation to the many people in the Department of Defense - both military and civilian - who contributed generously of their time in answering its innumerable questions and volunteering so many constructive suggestions. We found them uniformly anxious to help and enthusiastic about the possibilities for improving operations. As it was not deemed feasible to refer its recommendations to all interested parties and agencies for review prior to submitting its report, its recommendations are its own, and have not had the benefit of such advance review.

To all these people who contributed so much to its endeavors, the Panel extends its deep thanks. Especially, we realize that the fine response would not have happened without the strong support of Secretary of Defense Melvin R. Laird, and Deputy Secretary of Defense David Packard.

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BLUE RIBBON DEFENSE PANEL REPORT

EXECUTIVE SUMMARY

The purpose of this summary is to provide a quick review of the six-chapter report resulting from the year-long study by the Blue Ribbon Defense Panel. The Panel's report offers recommendations in a number of areas including organization, management of materiel resources, management procedures, personnel management and conflicts of interest. This summary covers the major recommendations of the Panel in the area of the organization of the Defense Department and several of the more significant recommendations in the other areas.

As a result of its examination of the Defense Department, the Panel found that:

- Effective civilian control is impaired by a generally excessive centralization of decision-making authority at the level of the Secretary of Defense. The Secretary's ability to selectively delegate authority and decentralize management, while still retaining personal authority on major policy issues of the Department, is seriously inhibited by the present organizational structure.
- The President and the Secretary of Defense do not presently have the opportunity to consider all viable options as background for making major decisions, because differences of opinion are submerged or compromised at lower levels of the Department of Defense.
- There are too many layers of both military and civilian staffs, and staffs are too large in the Office of the Secretary of Defense, (OSD) the Military Departments extending down through the field commands, the Joint Chiefs of Staff and the Unified and Component Commands. The results are excessive paper work and coordination, delay, duplication and unnecessary expense.
- The present arrangement for staffing the military operations activities for the President and the Secretary of Defense through the Joint Chiefs of Staff and the Military Departments is awkward and unresponsive; it provides a forum for inter-Service conflicts to be injected into the decision-making process for military operations; and it inhibits the flow of information between the combatant commands and the President and the Secretary of Defense, often even in crisis situations.
- The Joint Chiefs of Staff could more effectively perform their important statutory role as principal military advisors to the President and the Secretary of Defense if they were relieved of the necessity of performing delegated duties in the field of military operations and Defense Agency supervision.
- The present combatant command structure does not facilitate the solution of many serious problems which materially affect the security of the nation. For example, recent advances in technology require much closer coordination in planning for and employing the forces of the Continental Air Defense Command and the Strategic Air Command than can reasonably be expected with two separate commands. Also, the present Unified Commands do not bring about unification of the Armed Forces, but rather are layered with Service component headquarters and large headquarters' staffs.
- There is substantial room for improvement and greater integration of management

throughout the supply, maintenance and transportation systems of the Department. The most critical need for improved effectiveness is in the support of the Unified Commands.

- There is no organizational element within OSD with the capability or the assigned responsibility for objectively making net assessments of U.S. and foreign military capabilities.
- There is no adequate organizational element within OSD that is charged with the responsibility for long-range planning for the structuring and equipping of forces or for other similar purposes.
- No formal mechanism exists within OSD to assure adequate coordination among the various elements of the Department.
- The present functional assignments of Assistant Secretaries of the Military Departments contribute to duplication between the efforts of the Military Department Secretariats and the Service military staffs, and also between the Military Department Secretariats and OSD.
- The policies of the Department on development and acquisition of weapons and other hardware have contributed to serious cost overruns, schedule slippages and performance deficiencies. The difficulties do not appear amenable to a few simple cure-alls, but require many interrelated changes in organization and procedures.
- Operational test and evaluation has been too infrequent, poorly designed and executed, and generally inadequate.
- Procurement procedures do not sufficiently reflect the national need to maintain an adequate, but not excessive, industrial base.
- The promotion and rotation systems of the Military Services do not facilitate career development in the technical and professional activities, such as research and development, procurement, intelligence, communications and automatic data processing.
- The acquisition and retention of officers and enlisted men in the Armed Services are becoming increasingly difficult for a number of reasons, including (1) personnel policies with respect to compensation, promotion and retirement, and (2) the negative attitude of segments of the public.
- While policies on equal employment opportunity for military and civilian personnel and for contractors appear adequate, implementation responsibilities and functional assignments are fragmented and diffused and have impaired the achievement of effective results.
- The statutes and regulations regarding conflicts of interest are ambiguous, conflicting, and inequitable, and are not uniformly enforced.

To effect substantial improvement in these conditions, the Panel makes the following recommendations:

1. The functions of the Department of Defense should be divided into three major groupings:

(a) Military Operations, including operational command, intelligence, and communications (herein called Operations);

(b) Management of personnel and materiel resources (herein called Management of Resources); and

(c) Evaluation type functions, including financial controls, testing of weapons, analysis of costs and effectiveness of force structures, etc., (herein called Evaluation).

2. Each of these major groups should report to the Secretary of Defense through a separate Deputy Secretary. Appointees to these three positions should be drawn from civilian life, and should rank above all other officers of the Department of Defense except the Secretary. One of the three should be designated principal deputy. The General Counsel, the Assistant to the Secretary of Defense (Atomic Energy), the Assistant Secretary of Defense (Public Affairs), and the Assistant to the Secretary of Defense (Legislative Affairs) would continue to report directly to the Secretary of Defense. The staff of the Office of the Secretary of Defense should not exceed 2,000 people.

3. The Deputy Secretary of Defense for Management of Resources should be delegated responsibility for the following functions:

(a) The Military Departments, which should continue under the immediate supervision of their Secretaries;

(b) Research and Advanced Technology;

(c) Engineering Development;

(d) Installations and Procurement (a modification of the present Installations and Logistics);

(e) Manpower and Reserve Affairs;

(f) Health and Environmental Affairs;

(g) Defense Supply Agency; and

(h) Advanced Research Projects Agency.

There should be an Assistant Secretary of Defense for each of the functions (b) through (f) inclusive, who reports and provides staff assistance to the Secretary of Defense through the Deputy Secretary of Defense (Management of Resources). The position of Director, Defense Research and Engineering should be abolished, and his functions reallocated between the Assistant Secretary of Defense for Research and Advanced Technology and the Assistant Secretary of Defense for Engineering Development.

Functions (g) and (h) should continue to be constituted as Defense Agencies, each under the immediate supervision of a Director.

The Advanced Research Projects Agency should be delegated the responsibility for all research and exploratory development budget categories. Funds for such research should be

budgeted directly to this Agency, and the Agency should be authorized to assign or contract for work projects to laboratories of the Defense Department or in the private sector, as appropriate.

4. The Deputy Secretary of Defense for Operations should be delegated responsibility for the following functions:

- (a) Military Operations;
- (b) The Unified Commands;
- (c) Operational Requirements;
- (d) Intelligence;
- (e) Telecommunications (and Automatic Data Processing);
- (f) International Security Affairs;
- (g) Defense Communications Agency; and
- (h) Civil Defense Agency (if Civil Defense is to be retained in the Department of Defense).

Three new major Unified Commands should be created: (1) A Strategic Command, composed of the existing Strategic Air Command, the Joint Strategic Target Planning Staff, the Continental Air Defense Command, and Fleet Ballistic Missile Operations; (2) A Tactical (or General Purpose) Command, composed of all combatant general purpose forces of the United States assigned to organized combatant units; and (3) A Logistics Command, to exercise for all combatant forces supervision of support activities, including supply distribution, maintenance, traffic management and transportation. No Commander of a Unified Command should be permitted to serve concurrently as Chief of his Military Service.

The responsibilities now delegated to the Joint Chiefs of Staff by the Secretary of Defense to serve as military staff in the chain of operational command with respect to the Unified Commands, and all other responsibilities so delegated which are related to military operations and the Unified Commands, should be assigned to a single senior military officer, who should also supervise the separate staff which provides staff support on military operations and the channel of communications from the President and Secretary of Defense to Unified Commands. This officer should report to the Secretary of Defense through the Deputy Secretary of Defense (Operations). This senior military officer could be either the Chairman of the Joint Chiefs of Staff, as an individual, not ex-officio, the Commander of the Tactical Command, or some other senior military officer, as determined by the President and the Secretary of Defense.

There should be an Assistant Secretary of Defense for each of the functions (c) through (f), inclusive, who reports and provides staff assistance to the Secretary of Defense through the Deputy Secretary of Defense (Operations). The Defense Communications Agency and The Civil Defense Agency would each be under the immediate supervision of a Director.

All intelligence functions of the Department of Defense and all communications functions should report to the Secretary of Defense through the Deputy Secretary of Defense for Operations.

5. The following steps should also be taken:

(a) To provide the staff support on military operations, and the channel of communications from the President and the Secretary of Defense to the Unified Commands, an operations staff, separate from all other military staffs, should be created.

(b) The responsibilities now delegated to the Joint Chiefs of Staff by the Secretary of Defense to serve as military staff in the chain of operational command with respect to the Unified Commands, and all other responsibilities so delegated which are related to military operations and the Unified Commands, should be rescinded; and consideration should be given to changing the title of the Chief of Naval Operations to Chief of Staff of the Navy.

(c) All staff personnel positions in the Organization of the Joint Chiefs of Staff and in the headquarters military staffs of the Military Services which are in support of activities, such as military operations, which are recommended for transfer to other organizational elements, should be eliminated.

(d) The Organization of the Joint Chiefs of Staff should be limited to include only the Joint Chiefs of Staff and a reconstituted Joint Staff limited in size to not more than 250 officers augmented by professional civilian analysts as required.

(e) The Unified Commanders should be given unfragmented command authority for their Commands, and the Commanders of component commands should be redesignated Deputies to the commander of the appropriate Unified Command, in order to make it unmistakably clear that the combatant forces are in the chain of command which runs exclusively through the Unified Commander;

(f) In consolidating the existing area Unified Commands into the Tactical Command, major organizational and functional advantages will be obtained by:

(1) Merging the Atlantic Command and the Strike Command;

(2) Abolishing the Southern Command and reassigning its functions to the merged Atlantic and Strike Commands;

(3) Abolishing the Alaskan Command and reassigning its general purpose function to the Pacific Command and its strategic defense functions to the Strategic Command; and

(4) Restructuring the command channels of the sub-unified commands.

(g) The responsibilities related to civil disturbances currently delegated to the Army should be redelegated to the Tactical Command; and

(h) The Unified Commanders should be given express responsibility and capability for making recommendations to the Deputy Secretary of Defense for Operations, for operational capabilities objectives and for allocations of force structures needed for the

effective accomplishment of the missions assigned to their Commands.

6. The Deputy Secretary of Defense for Evaluation should be delegated the responsibility for evaluation and control-type activities, including:

- (a) Comptroller (including internal audit and inspection services);
- (b) Program and Force Analysis (a modification of the present Systems Analysis Unit);
- (c) Test and Evaluation;
- (d) Defense Contract Audit Agency; and
- (e) Defense Test Agency.

There should be an Assistant Secretary of Defense for each of the functions (a) through (c) inclusive, who reports and provides staff assistance to the Secretary of the Defense through the Deputy Secretary of Defense for Evaluation.

The Defense Contract Audit Agency should be continued as a Defense Agency, under the immediate supervision of a Director.

A Defense Test Agency should be created to perform the functions of overview of all Defense test and evaluation, designing or reviewing of designs for test, monitoring and evaluation of the entire Defense test program, and conducting tests and evaluations as required, with particular emphasis on operational testing, and on systems and equipments which span Service lines. The Defense Test Agency should be under the supervision of a civilian Director, reporting to the Secretary of Defense through the Deputy Secretary of Defense for Evaluation.

7. The number of Assistant Secretaries in each of the Military Departments should be set at three, and except for the Assistant Secretaries (Financial Management), they should serve as senior members of a personal staff to the Secretaries of the Military Departments without the existing limitations of purview imposed by formal functional assignments. The Assistant Secretary (Financial Management) should become the Comptroller of the Military Department, with a military deputy, as in the current organization in the Department of the Navy.

The Secretariats and Service Military Staffs should be integrated to the extent necessary to eliminate duplication; the functions related to military operations and intelligence should be eliminated; line type functions, e.g., personnel operations, should be transferred to command organizations; and the remaining elements should be reduced by at least thirty percent. (A study of the present staffs indicates that the Secretariats and Service staffs combined should total no more than 2,000 people for each Department).

8. Class II activities (Army), Field Extensions (Air Force), and Commands and Bureaus (Navy), all of which are line, rather than staff in character, which are now organizationally located under the direct supervision of staff elements in the headquarters military staffs of the Services, should be transferred to existing command-type organizations within the Services.

9. The Defense Atomic Support Agency should be disestablished. Its functions for nuclear weapons management should be transferred to the operations staff under the Deputy Secretary of Defense for Operations, and its weapons effects test design function should be transferred to the Defense Test Agency.

10. The administration functions presently assigned to the Assistant Secretary of Defense (Administration) should be assigned to a Director of Pentagon Services, reporting to the immediate office of the Secretary of Defense. He should be responsible for operating the facilities and providing administrative support for the Washington Headquarters.

11. A Net Assessment Group should be created for the purpose of conducting and reporting net assessments of United States and foreign military capabilities and potentials. This group should consist of individuals from appropriate units in the Department of Defense, consultants and contract personnel appointed from time to time by the Secretary of Defense, and should report directly to him.

12. A Long-Range Planning Group should be created for the purpose of providing staff support to the Secretary of Defense with responsibility for long-range planning which integrates net assessments, technological projections, fiscal planning, etc. This group should consist of individuals from appropriate units in the Department of Defense, consultants and contract personnel appointed from time to time by the Secretary of Defense, and should report directly to him.

13. A Coordinating Group should be established in the immediate office of the Secretary of Defense. The responsibilities of this Group should be to assist the Secretary of Defense and the Deputy Secretaries of Defense in coordinating the activities of the entire Department in the scheduling and follow-up of the various inter-Departmental liaison activities; to staff for the Secretary the control function for improvement and reduction of management information/control systems needed within the Department and required from Defense contractors; and to assure that each organizational charter of the Office of the Secretary of Defense is of proper scope and coordinated and in accordance with the assigned responsibility of the organization. The responsibility for the Department's Directive/Guidance System, currently assigned to the Assistant Secretary of Defense (Administration), should be assigned to this group. The coordinating group should be headed by a civilian Director, who should also serve as executive assistant to the Secretary of Defense.

14. The Army Topographic Command, the Naval Oceanographic Office and the Aeronautical Chart and Information Center should be combined into a unified Defense Map Service reporting to the Secretary of Defense through the Deputy Secretary of Defense for Management of Resources.

15. A new development policy for weapons systems and other hardware should be formulated and promulgated to cause a reduction of technical risks through demonstrated hardware before full-scale development, and to provide the needed flexibility in acquisition strategies. The new policy should provide for:

(a) Exploratory and advanced development of selected sub-systems and components independent of the development of weapon systems;

- (b) The use of government laboratories and contractors to develop selected sub-systems and components on a long-term level of effort basis;
- (c) More use of competitive prototypes and less reliance on paper studies;
- (d) Selected lengthening of production schedules, keeping the system in production over a greater period of time;
- (e) A general rule against concurrent development and production efforts, with the production decision deferred until successful demonstration of developmental prototypes;
- (f) Continued trade-off between new weapon systems and modifications to existing weapon systems currently in production;
- (g) Stricter limitations of elements of systems to essentials to eliminate "gold-plating";
- (h) Flexibility in selecting type of contract most appropriate for development and the assessment of the technical risks involved;
- (i) Flexibility in the application of a requirement for formal contract definition, in recognition of its inapplicability to many developments;
- (j) Assurance of such matters as maintainability, reliability, etc., by means other than detailed documentation by contractors as a part of design proposals;
- (k) Appropriate planning early in the development cycle for subsequent test and evaluation, and effective transition to the test and evaluation phase; and
- (l) A prohibition of total package procurement.

16. The effectiveness of Program or Project Management should be improved by:

- (a) Establishing a career specialty code for Program Managers in each Military Service and developing selection and training criteria that will insure the availability of an adequate number of qualified officers. The criteria should emphasize achieving a reasonable balance between the needs for knowledge of operational requirements and experience in management;
- (b) Increasing the use of trained civilian personnel as program managers;
- (c) Providing authority commensurate with the assigned responsibility and more direct reporting lines for program managers, particularly those operating in matrix organizational arrangements; and
- (d) Giving the program manager directive authority, subject to applicable laws and regulations, over the contracting officer, and clarifying the fact that the contract auditor acts in an advisory role.

17. Increased use should be made of parametric costing techniques for developments and procurements to improve the quality of original and subsequent estimates, and to help

offset the difficulties of estimating the costs of unknowns.

18. A separate program category* should be established for test and evaluation, especially operational testing, and the responsibility for overview of all Defense test and evaluation efforts should be assigned to the Defense Test Agency.

19. Specialist careers should be established for officers in such staff, technical and professional fields as research, development, intelligence, communications, automatic data processing, and procurement.

20. In order to improve the process of acquisition and retention of military personnel, the Executive Branch should develop, and submit to the Congress for its consideration as necessary, a total military personnel program which coordinates and reconciles all the separate considerations, particularly including; (1) military compensation and retirement, (2) personnel policies on promotion and rotation, and (3) acquisition programs, such as Reserve Officers Training Corps.

21. The duration of assignments for officers should be increased, and should be as responsive to the requirements of the job as to the career plan of the officer. Officers continued on an assignment for this reason should not be disadvantaged in opportunity for promotion.

22. Executive Orders and Department of Defense Directives with respect to matters of equal employment opportunity for Department of Defense military personnel, civilian employees and contractors, as set forth in the existing comprehensive programs for insuring equal opportunity, should be administered from a sufficiently high organizational level in the Department to assure effective implementation, and the procedures for assessing penalties for non-compliance should be reviewed and clarified.

23. The Secretary of Defense should recommend clarifying changes in conflict of interest statutes, should amend the regulations to clarify them, and should make certain administrative changes to insure uniform enforcement.

*Program categories are those categories of activities used for internal planning and management in the Department, e.g., strategic offensive forces, strategic defensive forces, research and development, intelligence, etc.

BACKGROUND AND INTRODUCTION

Background

Any effective changes in military organization and management in the United States must be predicated on a thorough understanding of the evolutionary process which has resulted in the existing military structure and procedures. The Department of Defense was established only 23 years ago; however, it has been shaped by historical factors, some of which predate the American Revolution.

Among the most significant factors influencing the organization of the Defense establishment are:

- (1) The traditional attitudes of the Nation toward the military and toward the Nation's role in international affairs;
- (2) The Constitutional separation of powers of civilian control of the military between the Legislative and Executive Branches of Government;
- (3) The traditional roles and relationships of the several Military Services; and in recent years;
- (4) The qualitative and quantitative changes in warfare;
- (5) The revolution in technology; and
- (6) Rising costs.

The concern of Americans to insure civilian control of the military dates back to the colonial era and was reinforced by the examples of other nations in contemporary history. A fear of military rule found expression in the Declaration of Independence with charges against George III that "he has kept among us in times of peace Standing Armies, without the consent of our legislators" and that "he has effected to render the Military independent of and superior to the civil power." Neither the basic concern to insure, nor the requirement to provide effective civilian control has diminished during the intervening years. There has never been any real challenge to this concept. Military men in this country readily acknowledge its validity. Such difficulties as have arisen result not from the principle, but from how best to make it effective.

Many Americans have traditionally tended toward isolationism in international affairs. The reasoning which led President Washington to caution in his farewell address against "foreign entanglements" has never entirely lost its attraction to Americans. Unlike other nations in history that achieved dominant roles in world affairs through design, the United States was thrust into such a role because of its economic, industrial, technical and military potential – largely against its will. Before World War II, the United States never maintained a large, standing military force in peacetime, but the continuous maintenance since then of a large and costly force is a constant reminder of the burden of international responsibilities which must be reconciled with a still persistent desire for the world to "leave us alone." Each exercise of these responsibilities which involves the active employment of military forces stimulates a resurgence of latent reluctance to accept international involvement – a

reluctance which tends to increase in direct proportion to the length, intensity and cost of the military involvement in men and money, unless the security of the United States is obviously and immediately at stake.

The deep-seated objections on the part of many Americans to our current involvement in the war in Southeast Asia are partly a result of this long history. Our Country's natural abhorrence of war has been accentuated by a number of new factors - the relatively heavy involvement of American manpower, the long drawn-out nature of guerrilla warfare, the absence of the stimulating prospect of a "victory," and the "instant reporting" of news, with war's always dismal face being brought into our living rooms in vivid color.

The Panel has not been asked to and does not take a position on these trends, nor has it been asked to consider what basic national policy should be, or what the Defense Department's mission should be in the context of such policy. Its assigned task was to examine the organization and operation of the Department of Defense, and make recommendations to help the Department perform its assigned national security mission more efficiently.

However, the Panel cannot be insensitive to the environment in which the Department of Defense operates. It was impossible to be thorough in our assigned area and be blind to the more fundamental questions. In reading and hearing testimony from people with widely diverse interests and backgrounds, we sensed intimately the wide divergence of opinions in these areas.

We could not fail to be interested in discussions as to the nature of the various threats to our Nation's security that the Department of Defense must be prepared to counter. We could not fail to note the effect of developments of the last several years on the public's attitude toward the Department of Defense in general and the military in particular. We could not fail to be aware of the emotional as well as the intellectual strains these issues cause among Americans. And, we could not fail to recognize the importance to different groups of winning the minds and hearts of the uncommitted, and the various means used for this purpose.

While these matters are outside the scope of our study, we believe they have a profound influence on the Department of Defense. It is in this context that the Panel formed its recommendations.

The Constitutional allocation of the powers of civilian control of the military has had a recognizable impact on each change in military organization. Although the President is assigned the role of Commander-in-Chief of the Armed Forces, the Constitution vests in the Congress significant instruments of control, including (1) the Senate's power of advice and consent to Presidential appointments, (2) declaration of war, (3) the appropriation of funds, (4) raising armies and maintaining a Navy, (5) making rules for the government and regulation of the Armed Forces, and (6) calling the militia into Federal Service.

The Military Services have from time to time found the Constitutional separation of the powers of civilian control of use to them in their understandable and unending effort to maintain and occasionally extend their traditional roles and missions. In short, it has often provided an environment conducive to inter-Service rivalry and competition.

Inter-Service rivalry and competition are not necessarily bad, and can be good when

they result in improved effectiveness or economy in our military forces. So long as we have separate Military Services, separate loyalties are inevitable. A man's pride in his own Service is well worth preserving.

A difference of opinion as to which Service should be responsible for a specific mission or for the development of a particular weapon certainly does not reflect upon the honor, integrity and dedication of the officers involved. It is more likely the logical result of each officer's honest belief that his Service or his idea of a new weapon is in fact best for the country. The inter-Service difficulties are complicated by the increasing budget pressures, thus making the competition for the available dollars keener.

The Panel believes that its recommendations can improve the organization so that proper Service loyalties and competition are more likely to be directed to the best end results.

During and following World War II, it became increasingly evident that the nature of warfare was undergoing radical change. World War II proved that modern transportation capabilities had vastly increased the size of forces which could be engaged in a war. It also was demonstrated that modern warfare required combined operations by land, sea and air forces, and this in turn required not only a unity of operational command of these forces, but also a unified and coordinated process for structuring forces to achieve the most effective force mixture. As President Eisenhower was to express it, "separate ground, sea and air warfare is gone forever."* Of even greater significance, however, was the markedly increased interdependence of military power and its use with industrial, economic, diplomatic and political factors. The totality of Governmental actions and the utilization of resources have become so interdependent that it is no longer possible to speak meaningfully of a "purely military decision."

The explosion of technology has had a profound impact on military operations and organization. This has not been limited to weapons technology; however, the development of nuclear weapons unquestionably has been a very significant influence. The rate of technological change influences all segments of our society, and the military have been subject to new opportunities and pressures which conflict with traditional methods. The art of warfare in the post-World War II world has been characterized by uncertainty, as the past has provided fewer and fewer guidelines for the future.

It is not surprising that both in and out of the military establishment there have been sharply differing opinions on how the new technology can be applied to the spectrum of conflict situations for which the U. S. must be prepared, what organizational changes are required to exploit new and radically different capabilities, and the costs of converting technology to the uses of war. The development of new weapon systems to meet the evolving threats to the security of the United States is a vital part of our National Defense, and is one of the driving forces behind the entire Defense structure. As such, it must be carefully controlled.

The principal objective of United States military power is to deter war by having sufficient and credible power to maintain peace. To help reduce the human and material costs of the military power necessary for this purpose of keeping the peace, Americans

*President Eisenhower's Message to Congress, April 3, 1958

earnestly hope for the success of the Strategic Arms Limitation Talks (SALT). The importance of the concept of keeping the peace by deterring war led to the choice of the title of this Report: "Defense for Peace."

While there have been revolutionary changes in warfare and technology, this country's reaction to them has been moderated by the traditional influences and historical political mechanisms. The changes in military organization have thus been evolutionary rather than revolutionary, and each change has represented a compromise between conflicting pressures and influences. This essentially cautious approach to making necessary changes has much to commend it; however, it carries with it the requirements for constant review and consequent adjustment to cope with current and changing U.S. responsibilities and to counter the current and projected threats to the security of the United States.

Changes in Military Organization since World War II

During World War II, the single direction of military components of the U. S. became a prerequisite to the success of the war effort. It was also a necessity for harmonious interface of the U. S. military command structure with those of our allies. This experience virtually ruled out a return to the prewar separateness of Services, but by no means suppressed the divergent pressures which derived from traditional attitudes within the Services, and from institutional balances between the executive and legislative branches of Government. The Army, whose position was strongly supported by President Truman, became an advocate of close unification. The Army's objective received an assist from the proponents of air power, motivated by a strong desire for co-equal status for air forces with land and sea forces. The Navy – fearing for the future of its naval air power and the Marine Corps – wanted at the time no part of unification, particularly of unified command in Washington.

The history of the U. S. military establishment since World War II is more clearly told in a series of evolutionary organizational changes, commencing with the 1947 legislation, which initiated the first move toward "unification."

The National Security Act of 1947

The National Security Act of 1947 reflected a compromise of these diverse currents and pressures. The Congress acknowledged the need for military "unification" and closer coordination of foreign and military policy, and it was particularly motivated by the substantial economies which it appeared would result from elimination of wasteful inter-Service rivalry. Even these conclusions were tempered, however, by the reluctance of Congress to bestow on the President any additional powers that might weaken the congressional role in the civilian control of the Armed Forces.

The Act, in addition to creating a National Security Council for better coordination of foreign and military policy, and a Central Intelligence Agency for coordination of intelligence in hopes of precluding the diffusion of intelligence responsibility which made possible a "Pearl Harbor," created the Office of the Secretary of Defense to provide the President a principal staff assistant "in all matters relating to the national security."

The characteristics of compromise were most significantly reflected in the powers granted to the Secretary of Defense. Rather than presiding over one single Department of the Executive Branch, as recommended by President Truman, he was to preside over the National Military Establishment, which consisted of three Executive Departments – Army,

Navy and Air Force – each headed by a cabinet-level Secretary.

The Secretaries of each of the Military Departments retained all their powers and duties, subject only to the authority of the Secretary of Defense to establish "general" policies and programs, to exercise "general" direction, authority and control, to eliminate unnecessary duplication in the logistics field, and to supervise and coordinate the budget. The Secretary of Defense was given only three Special Assistants. The Joint Chiefs of Staff were given statutory recognition but remained, in effect, a committee depending on voluntary cooperation. The Act, in an effort to prevent a repetition of the haphazard economic mobilization of World War II, created a Munitions Board and a Research and Development Board, but made the representatives of the Military Departments on each board co-equal with the Chairman of the Board.

The resulting military organization was aptly characterized some years later by President Eisenhower as "little more than a weak confederation of sovereign military units."

This was the first step in the post-World War II evolution of the U.S. military organization. Each subsequent step was to be characterized by debate centered upon the powers required by the Secretary of Defense to assure properly unified Armed Forces and their efficient management.

The 1949 Amendments to the National Security Act

In 1949, armed with the findings of the Hoover Commission's Task Force on National Security Organization, the public plea of Secretary of Defense Forrestal (who in 1947 had opposed a strong unification effort), and the Eberstadt Task Force report, all of which documented the weaknesses of the 1947 Act and recommended greater powers for the Secretary of Defense, the President reinstated his insistence for more effective unification of the military establishment.

The resulting changes in military organization once again reflected a compromise of the existing pressures and influences, but on balance, represented a major step in the direction of unification. The Department of Defense became an Executive Department, with the Secretary of Defense responsible for general direction. The Office of the Deputy Secretary of Defense was created and the three Special Assistants to the Secretary of Defense were converted to Assistant Secretaries. The Executive Departments of the Army, Navy and Air Force were reduced to Military Departments – with the proviso, however, that they should be separately administered. The position of Chairman of the Joint Chiefs of Staff was created but given little more authority than to preside as a nonvoting member over meetings of the Joint Chiefs of Staff. The President's request for a transfer to the Secretary of Defense of the statutory functions of the Joint Chiefs of Staff, the Munitions Board and the Research and Development Board was denied. The Secretary of Defense was specifically prohibited from transferring assigned combatant functions among the Military Departments and was limited in the transfer of noncombatant functions by a requirement for prenotification of Congress.

Subsequent to his submission of the request for the statutory changes in the National Security Act of 1947, but before the Congress enacted the 1949 amendments to the National Security Act, the President submitted to the Congress Reorganization Plan No. 4, by which the National Security Council and the National Security Resources Board were transferred to the Executive Offices of the President. By selecting only these two boards for

transfer to the Executive Office of the President, the Reorganization Plan and the language of the President's message of transmittal, by omission, supported the implication that the Munitions Board, the Research and Development Board and the Joint Chiefs of Staff were parts of the Department of Defense, and as such, subject to the "general direction" of the Secretary of Defense. The statutes were uniformly silent as to the organizational location of all five entities.

The 1953 Reorganization Plan

Further changes in Defense organization came in 1953, in the form of Reorganization Plan No. 6 submitted to Congress by President Eisenhower. Under the provisions of that plan, which became effective on June 30, 1953, the Munitions Board, the Research and Development Board, the Defense Supply Management Agency and the Director of Installations were all abolished and their functions transferred to the Secretary of Defense. In addition, the selection and tenure of the Director of the Joint Staff by the Joint Chiefs of Staff was made subject to the approval of the Secretary of Defense. The function of managing the Joint Staff was transferred from the Joint Chiefs of Staff to the Chairman of the Joint Chiefs of Staff. Six additional Assistant Secretary positions, supplementing the three in existence, and a General Counsel of equivalent rank, were established to provide more adequate assistance to the Secretary of Defense.

The 1958 Amendments to the National Security Act

Faced by continuing inter-Service rivalry and competition over the development and control of strategic weapons, and under the impetus of the successful launching of the Sputnik satellite by the Soviet Union in October 1957, President Eisenhower in 1958 requested, and the Congress enacted, substantial changes in the military organization.

The basic authority of the Secretary of Defense was redefined as "direction, authority and control," which is as strong as the lawmakers knew how to write it. In addition, the Secretary of Defense was given substantial power to reorganize the Department of Defense, specifically in logistic areas.

The 1949 requirement that the Military Departments be "separately administered" was relaxed to "separately organized."

The authority of the Secretary of Defense over research and development programs of the Department was strengthened, and the Secretary was provided with a Director of Defense Research and Engineering.

The legislation covering the Joint Chiefs of Staff was amended in several ways. The authority of the Chairman over the Joint Staff was increased, and the authorized maximum strength of the Joint Staff was enlarged from 210 to 400 officers.

The concept of "unified" and "specified" commands was established by law. The statutory authority of the Chief of Naval Operations and of the Chief of Staff of the Air Force to "command" forces was repealed. (The Chief of Staff of the Army had never had statutory command authority). The Military Departments were removed by statute from the chain of command over the operating forces in an effort to clarify and shorten the chain of command. However, the Secretary of Defense delegated to the Joint Chiefs of Staff the duty to serve as advisors and as military staff in the chain of operational command. As the

members of the Joint Chiefs of Staff are the same officers as the Chiefs of the Military Services, wearing their "other hats," this delegation from the Secretary of Defense effectively put the Military Service Chiefs back into operations.

Developments Since 1958

The changes in military organization since 1958 have flowed primarily from the reorganizational powers granted to the Secretary of Defense in the 1958 Amendments to the National Security Act. The more significant changes were the creation of the Defense Agencies: The Defense Atomic Support Agency in 1959; The Defense Communications Agency in 1960; The Defense Intelligence Agency in 1961; The Defense Supply Agency in 1962, and The Defense Contract Audit Agency in 1965. Significantly, each new Agency represented a consolidation of a functional activity by the Secretary of Defense in an effort to overcome the effects of functional diffusion among the Military Services.

Those changes in the nature of warfare which became apparent in the mid-1940s have become even more compelling with the passage of time. The interrelationship of components of the military establishment, and of military policy and actions with other elements of national policy and activity, are even closer and more complex.

The technological revolution, both in weapons and in general, continues unabated. Furthermore, it has proliferated to many other nations – both friendly and unfriendly – and has become highly competitive. The increasing sophistication of weapons and of the mechanisms for their control have been accompanied by a vast increase in costs.

The need for effective civilian control is certainly no less compelling now than in 1947. Evidence of excessive competition among the Military Services over roles and missions and over the development of new weapons erupts periodically into the open to indicate diffusion of national efforts and resources.

The strong interest and efforts of both the executive and legislative branches to strengthen their respective roles in civilian control have, if anything, increased. Indeed, the period since the middle of the 1960s has been marked by action and reaction of the President and Secretary of Defense, on the one hand, and the Congress, on the other, to increase the effectiveness of their own mechanisms for control relative to the other. These conflicts may well have failed to accomplish the ends that both have sought, and which might have been attainable through a more cooperative and harmonious effort.

While it is not within the Panel's Charter to recommend changes in the procedures of the Congress, it is relevant to point out the fact that the division of responsibility between the executive and legislative branches of the Government is further complicated by the diffusion of committee responsibility for Defense matters within the Congress itself.

In retrospect, the evolutionary approach to reorganization of the Department of Defense, while falling significantly short of the objectives of organizational and management purists, and at the same time overriding the inhibitions of the organizational traditionalists, has, on the whole, served the Nation's interests well. A more revolutionary approach to military reorganization might have destroyed values inherent in the traditional military organization which have been worth preserving. Even more significant, revolutionary changes would probably have seriously disrupted the operation and reduced the effectiveness of U. S. military forces during a period when the world situation necessitated maintenance of credible military power.

The Panel was conscious of the spectrum of diverse influences, pressures and considerations in undertaking its study of the Department of Defense. It was against this background that it weighed advices ranging from the extreme of total unification of the Military Services, through preservation of the status quo, to a reduction of the authority of the Secretary of Defense and increased independence for the separate Military Services.

Current External Influences on Defense Management

The operation and management of the Department of Defense cannot be evaluated using only conventional management criteria, for the Department does not exist under conventional conditions. On the contrary, it operates in a highly volatile environment, subject to many pressures and conditions which are largely beyond the control and often beyond the influence of those primarily responsible for Defense management.

Among the more relevant factors bearing on Defense management are the shifts in national policies and priorities, both in foreign policy and domestic needs, and the accompanying shifts in the range of U. S. commitments and the number and types of crises occurring. Also, the important impact that defense spending can have on inflationary pressures, and vice versa, is currently of great importance.

Among the most significant of the environmental factors impinging on Defense management, are the changing attitudes and opinions of the United States public. These heavily influence all aspects of management, but particularly such matters as weapons development and procurement; budgetary planning; personnel acquisition, retention and training; external research and development; contracting flexibility; and a large range of internal management problems.

The Panel recognizes that the Department of Defense currently lacks the confidence of a significant segment of the American public. While some of this is undoubtedly due to misunderstandings, basically the Department must work harder to do the jobs assigned to it as efficiently as possible and to keep the public properly informed. The Panel believes there is considerable room for improvement on both counts, and offers many recommendations to those ends.

At the same time, it is important to note that overemphasis of legitimate causes of public concern, as well as ill-founded or mis-directed charges, have the effect of seriously impairing the capability of the Department to carry out its national security mission.

Changes in public attitudes are aptly illustrated by the public views about the industry which provides goods and services for defense. In times of generally acknowledged extreme national peril, such as the period of World War II, such industry is lauded, placed on a pedestal and characterized by such lofty phrases as the "Arsenal of Democracy." In other times, the public may regard the same industry (in many cases the same Companies) as a scapegoat for a wide range of problems, and characterize it as a conspirator in a sinister "Military-Industrial Complex," whose objective is believed to subvert the best interests of the country to private gain.

Each attitude impinges on the responsibilities for, approaches to, and effectiveness of Defense management. In the context of an "Arsenal of Democracy," the Defense manager's primary concern is quantity, quality, and speed of production. In the context of a "Military-Industrial Complex," the Defense manager is more likely to focus on the size of

the expenditure involved, the level of profits, and the methodology of contracting. Actually, all of these objectives are important and need attention at all times.

Better ways are needed to deal with the complex relationship between a government purchaser of unique goods and services for which there are sometimes no competing markets, and a private seller who generally must operate in a severely competitive environment. The "product" (often a complex weapon system) around which this relationship revolves, frequently cannot be accurately described by either party, since it has never been made, and producing it might require applications of technology never before perfected or even attempted. In the face of such uncertainty, both the buyer and the seller are required to estimate costs which are often unpredictable by any known techniques. Superimposed on these problems which are of special importance to the Department of Defense, is the general problem that inflation poses in all areas involving estimates of future costs. Nevertheless, these estimates nearly always become the major yardstick by which the success or failure of the transaction is measured. In addition, the seller must be prepared to operate under detailed supervision of the buyer, and frequently in accordance with procedures devised or prescribed by the buyer.

These problems must be solved, as it is in the best interest of all to maintain a healthy and productive industry which is responsive to overriding national interests.

Public attitudes with regard to the conduct of the war in Southeast Asia also significantly affect the present operations of the Department of Defense. Clearly a substantial part of the public holds the military responsible for inefficiency in the conduct of the war, resulting in its length and indecisiveness. Such attitudes appear to ignore the fact that many of the rules and restraints regarding how this war has been fought have not originated with the military, but with the civil authorities of Government. Many operational tactics, believed by some to be more militarily efficient, have been precluded by the United States self-imposed "rules of engagement," which reflect many factors in addition to military efficiency. Whether or not one agrees with the weight given the various factors in coming to such judgmental decisions, or with the actual decisions, the fact is that these decisions relating to the war in Southeast Asia were made by civilian, not military, officials - sometimes upon the advice of the military, and sometimes against such advice.

Those directly charged with Defense management have little control over many environmental factors that affect public attitudes. But they do have the basic responsibilities of doing the tasks assigned to them as efficiently as possible and of keeping the Congress and the public informed, within proper - but not unreasonable - restraints required for security reasons. In any event, as has already been noted, public attitudes should obviously be considered in any assessment of, or attempt to enhance, the potential for effective management of the Defense Department. In particular, if the Nation is to be able to recruit and retain competent military manpower, while at the same time keeping the Defense Department's claims on national resources within bounds, any "downgrading" of the military in public esteem cannot safely be ignored.

Objectives of Study and Recommendations

Operating in this environment, with this background, and in accordance with the terms of its assignment, the Panel has been concerned with the mechanisms and efficiency of defense operations, not with the substance of the policies to be executed. In short, the Panel has concentrated on the "hows" of doing, not the "what" to do.

The objective of the study was not to devise ways and means to save money, per se; it was rather an attempt to discover the cause of shortcomings and to devise and recommend changes in organization and procedures which appear to have potential for increasing the efficiency of the Department of Defense. Should our recommendations be implemented, and should they prove as sound as we conceive them to be, substantial savings should result. For example, the Panel is convinced that various layers of staff have grown and proliferated unnecessarily, resulting in substantial increases in manpower and paper work and decreased efficiency. If our recommendations are made effective, we anticipate substantial ultimate reductions in dollars and personnel, in both military and civilian areas.

We emphasize that such savings as result from increased efficiency will be realized principally in the long term, rather than the short term. Current expenditures yield little to improvements in efficiency, particularly in the Department of Defense where most funds, whether for people or material, require advance obligation. The recommendations of the Panel are not and could not be designed to support immediate budget reductions. The potential savings are in the long term.

The Panel did not concern itself as a group with whether realized savings should be allocated to achieving more defense capabilities at the same cost, or an equivalent level of defense at less cost. Our efforts were in no way oriented to altering the level of defense capability established by national policy.

Organization of Report

The size, diversity and complexity of the Defense establishment make it impractical to consider elements of defense operations or functions separately or isolated from other elements or from the whole.

Accordingly, many of our recommendations are interdependent for effective improvement. For example, internal management procedures can and do affect the effectiveness of the weapons acquisition process, but organizational improvements cannot in and of themselves guarantee greater effectiveness. Improvements in organization, however, can provide a structure which makes it easier for capable people (who must be acquired, trained, motivated and retained by improved personnel policies) to do a more efficient job.

The format of this report is designed to group the subjects in part according to the types of recommendations, and in part according to the subject matter to which the recommendations are directed.

The scope of the Panel's assignment was extremely broad, and the time for the study limited. Accordingly, the Panel found it necessary to establish priorities. The Panel studied in depth as many of the major subjects as its time and manpower permitted. Other areas of relatively minor importance were also included because they were more easily addressed. We believe the Panel's efforts in some areas, both major and minor, were sufficiently comprehensive to support specific recommendations. In others, our investigations were only sufficient to conclude that correctable problems exist, but were insufficient to support specific recommendations; in such instances we have recommended that further studies and examinations be conducted. In still other areas, there were indications of significant problems, but limitations of time prevented exploration by the Panel; our Report invites attention to these areas.

Selected staff reports have been identified as Appendices to this Report. The Panel's recommendations are in no case based exclusively on these staff reports, as its studies were broader and more extensive than the staff reports alone. Some of the appended staff reports contain detailed facts and evaluations bearing on specific recommendations of the Panel, while others address subjects, draw conclusions and suggest changes in areas which the Panel as a whole did not choose to address. In some such instances, there was a question as to whether the studies covered all of the particular subject or subjects sufficiently to enable the Panel confidently to make a recommendation. In still other areas of staff reports, the Panel lacked sufficient confidence in its judgmental capability to deal with the detailed, technical or specialized matter. However, they are of sufficient importance to be submitted with this Report as information, without necessarily implying endorsement of each item by the Panel.

General Observations

Several other general comments relating to our study are in order.

Throughout our study and our Report, we have concentrated on problem areas, rather than on areas in which operations appeared to be conducted efficiently and responsibly. Many things are done well in the Department of Defense, and we are conscious that our Report, because it is problem oriented, reflects a lack of balance of the positive with the negative aspects.

During the period in which the Panel conducted its study, changes in organization and procedures of the Department were carried out or initiated which have the potential for improving the responsiveness and efficiency of the Department. The Panel has followed these changes closely. In some cases, the Panel has already made data and evaluations collected in the course of its study available to those who might find immediate use therefor — and some of it has already been put to good use. Our observation of the Department's operation indicates that efforts to improve its organization and management were not generally inhibited or postponed while the study was in progress. Although this provided the Panel with a moving target, we welcomed the changes and the concern and sense of responsibility within the Department of Defense which prompted them. In case of changed organization or procedures, the Panel was provided with the specifics of the change and the rationale upon which it was based.

The Panel received excellent cooperation and inputs from both within and outside the Department. The Secretary of Defense made sure that the Panel experienced no limitations on its access to records and people of the Department.

The attitudes of the Department personnel almost unanimously reflected interest and a desire to assist in improving the effectiveness of the Department. Similar attitudes were displayed by people in other Departments of the Government. In particular, the Panel appreciates the valuable help provided by the General Accounting Office, the Bureau of the Budget, and the White House staff.

The Panel members who visited U.S. military commands in Europe and Southeast Asia were much impressed by the high caliber and dedication of our Nation's fighting forces — from general and flag officers down through the ranks. Considering the fact that the average age of our military personnel — including officers — is only 22.7 years, the ability and accomplishments of this large cross-section of the youth of America is inspiring.

CHAPTER I

ORGANIZATION

I. GENERAL

In approaching its task, the Panel became increasingly aware that no single organization or set of procedures would be adequate for the Department of Defense for all times. The organization and procedures of the Department must be sufficiently flexible to respond to a changing environment and evolving objectives.

Certain principles which guide organizational and procedural objectives do remain constant. First among such principles is the requirement for effective civilian control of the Defense establishment. Under the Constitution, civilian control is exercised through the combined efforts of both the Executive and Legislative Branches. Its effectiveness, however, depends in large measure on the capability of the Secretary of Defense to insure consistency of Department operations with policy, to surface the viable alternatives on major issues, and to maintain a high degree of visibility to himself, the President and the Congress of the functioning of the national Defense establishment.

Effective control of the military establishment by the Secretary is required not just for the purpose of insuring the supremacy of civil authority. While the President and the Secretary of Defense must have the benefit of professional military advice based on careers of military training and experience, unified control is essential to provide the Nation with maximum security at minimum costs, and to insure that military strategy, force structure and operations are consistent with national policy.

Despite the broad authority vested in the Secretary of Defense by the National Security Act of 1947, as amended, experience demonstrates that in practice, the tools available to the Secretary to exercise effective control of the Department are seriously deficient.

The evolution of defense organization since 1947 has not substantially reduced the inherent difficulties arising from the fact that the division of roles and missions among the Military Departments is still based fundamentally on distinctions between land, sea and air forces which have become increasingly less relevant. This results in continued adversary relations between the Military Services, which, although usually confined to the internal paper wars that constitute the Department's decision-making process, severely inhibit the achievement of economy and effectiveness required for adequate defense within available resources. The continuing interservice competition seriously degrades the decision-making process through obfuscation of issues and alternatives, and leads to attempts to circumvent decisions, repeated efforts to reopen issues that have already been decided, and slow, unenthusiastic implementation of policies to which a Service objects.

The results of such "parochialism" are, for example, reflected in: the development of the AX aircraft by the Air Force and the Cheyenne aircraft by the Army for the close air support role; the lack of enthusiasm for airlift expenditures by the Air Force and the Fast Deployment Logistics program by the Navy, both intended to support the Army; the organization of the operational command structure to provide a balance among the Services for senior officer billets; and the continued failure to resolve the issue of the best balance between land and carrier-based tactical air.

It should be noted that inter-Service rivalry fades rapidly in proximity to a zone of combat operations. In Vietnam, despite the encumbrance of a confused, distorted and divided command structure, imposed through a series of Service compromises, the military operates harmoniously as unified armed forces of the United States, due in large degree to the splendid leadership of the senior commanders in the field.

During this study, the Panel was exposed to a broad spectrum of experience-based opinion that deficiencies within the Department of Defense could not be remedied without either integrating or drastically restructuring the Military Services. Significantly, this opinion was not confined to civilians. It is based in no small part on the recognition that the changes made in defense organization since 1947, whether by reorganization plan or by statutory amendment, were all designed primarily to remedy the same or related problems to those which most plague the Department of Defense today. Unquestionably, the phrases in the reports of the Hoover Commission's Task Force on National Security Organization, the Eberstadt Task Force, the Rockefeller Committee of 1953, the President's message to the Congress in 1958, and many other studies made externally and internally to the Department have the familiar ring of applicability to contemporary conditions.

Nevertheless, the evidence, on balance, does not at this time support the necessity nor the desirability, in our opinion, for changes as drastic as elimination of the separate Services. The Panel does, however, recommend that the President and the Secretary of Defense reconsider this basic matter after the results of the Panel's recommendations for immediate action have been observed and evaluated.

The fundamental principles of the National Security Act of 1947, as amended, are still sound. Although experience indicates the desirability, and even the necessity, for some substantive changes, many of the deficiencies evident in the operation of the Department could be remedied by more faithful application of the concepts on which the Act is premised.

The Department of Defense is too large, and encompasses too many complex and diverse activities to respond to over-centralized management. Some logical division of activities must be made to facilitate management and control. However, achieving such division by radical reorganization would probably solve few, if any, of the basic conflicts which now exist; its effect would be more likely to relocate the organizational points at which divergent interests lock in controversy. There is also the danger that valuable morale factors rooted in tradition might be destroyed rather than controlled, or eliminated rather than redirected toward useful objectives.

A drastic restructuring would also inevitably risk serious disruptions of uncertain degree and duration in the operational capabilities and readiness of our military forces. In view of the current and foreseeable state of world affairs, only the most crucial need could justify acceptance of such risks.

II. CONTROL AND MANAGEMENT BY THE SECRETARY OF DEFENSE

The National Security Act bestows a broad expanse of authority on the Secretary of Defense to enable him effectively to direct and administer the Department of Defense. There is no serious legal impediment to prevent a Secretary of Defense from making any and every decision within the Department, subject only to Presidential and Congressional

policies. Practical, rather than legal, limitations make such an approach impossible. Even the doubling of his time and attention through the person of his alter-ego, the Deputy Secretary, does not significantly increase the decision-making time of the Secretary. A highly centralized decision-making process oriented to a single decision point, whether the decision point consists of one or two men, is inherently inadequate to manage the spectrum of activities required of the Department of Defense.

Indeed, attempts to overcentralize decision-making at the top seriously impair a Secretary's capability to exercise effective control. Under such circumstances, far too many decisions go unmade, critical issues are not addressed, problems are deferred and the principle of personal accountability is lost in the diffused maze of "staff coordination."

Effective civilian control and management, however, do not require that the Secretary of Defense make all, or even a major proportion, of the innumerable decisions necessary for the operation of the Department.

The alternative is for the Secretary to delegate substantial decision-making authority and all executory functions to subordinate levels of authority. Delegation is not synonymous with abrogation of responsibility, however. The application of such delegations of authority and executory functions must be carefully delineated, and paralleled with adequate, but simplified, reporting systems to insure that activities conducted under delegated authority are visible to and subject to audit by the Secretary. Delegations must be sufficiently specific to permit strict individual accountability.

Effective civilian control, appropriate delegation of authority, and decentralization of management cannot be effectively accomplished in the present organizational structure of the Department.

The organizational structure needs to be improved to attain the following compelling objectives:

- (1) The organization of the Department must be responsive to the direction, control and authority of the President and the Secretary of Defense in all areas of Departmental operations;
- (2) The lines of authority and responsibility within the Department must be made clear and unmistakable, so that delegation of authority and responsibility will not result in loss of individual accountability;
- (3) The chain of operational command must be unencumbered, and flexible enough to operate reliably and responsively in both peace and war;
- (4) The organization of the Department must permit and facilitate objective assessments and innovative, but non-duplicative, long-range planning for structuring and equipping of forces;
- (5) The organization of the Department must be streamlined to reduce substantially the manpower assigned to staff activities; and
- (6) The "span of control" of the Secretary must be reduced.

The attainment of these objectives can be facilitated by separating the functions of the Department into three major categories; (a) military operations; (b) management of resources and support; and (c) evaluation and control. An organization structured along these functional lines would permit effective delegation of authority and decentralization of management.

Conceptually, the National Security Act, as amended through 1958, organizationally divides the Department of Defense, below the level of the Office of the Secretary of Defense, between support activities and military operations. The Military Departments were given the responsibility for support matters, and military operations were centered in the Unified and Specified Command structure.

This separation, prescribed by the Congress, has much to commend it. In addition to providing a logical division of the total military power, it permits a Secretary of Defense to fashion his management decision points so as to concentrate on the interfaces between the "suppliers" and the "users" of resources, thereby enhancing his control capability.

The utility of this conceptual division has been impaired in practice. President Eisenhower's message transmitting the 1958 Reorganization Act to Congress said: "Clearly, Secretaries of Military Departments and Chiefs of individual Services should not direct unified operations and therefore should be removed from the command channel." Accordingly, the 1958 Reorganization Act separated the Chiefs of Staff as such from operations, and put the Unified and Specified Commands directly under the command of the President and the Secretary of Defense. However, the Secretary of Defense then delegated to the Joint Chiefs of Staff the responsibility to act as military staff in the chain of operational command to the Unified and Specified Commands. This reinvolved the Chiefs of the Services in combatant operations matters in their capacity as Joint Chiefs.

One additional functional division in Defense organization is essential to sound management. Evaluation functions should be organized separately from both support activities and military operations, to enhance the potential for independence and objectivity in the evaluations. This principle is acknowledged to a degree in the National Security Act by the provisions relating to functions of comptrollers for the Department of Defense and for Military Departments.

Dividing the responsibilities of the Department of Defense into these three major divisions would clarify lines of communications, control, and responsibility. It would replace divided responsibility for many matters with unified responsibility and accountability for a prescribed area. It would help both civilians and the military to concentrate on the areas in which they have special competence.

III. ORGANIZATION OF THE OFFICE OF THE SECRETARY OF DEFENSE

The Office of the Secretary of Defense (OSD) has more than doubled from approximately 1700 to 3500 personnel since 1956. This growth appears to reflect an attempt at highly-centralized management, undertaken in frequently futile attempts (1) to overcome difficulties arising from Service rivalries; and (2) to manage, in lieu of minimizing, the uncertainties inherent in planning, programming and budgeting, particularly as related to advanced weapons systems.

The OSD staff is organized by groupings in the offices of the Director of Defense Research and Engineering (DDR&E), the Assistant Secretaries of Defense (ASDs), the Assistants to the Secretary of Defense (ATSDs) and the General Counsel. These offices are structured in parallel and the lines of responsibility of each run directly to the Secretary/Deputy Secretary of Defense. (See Chart)

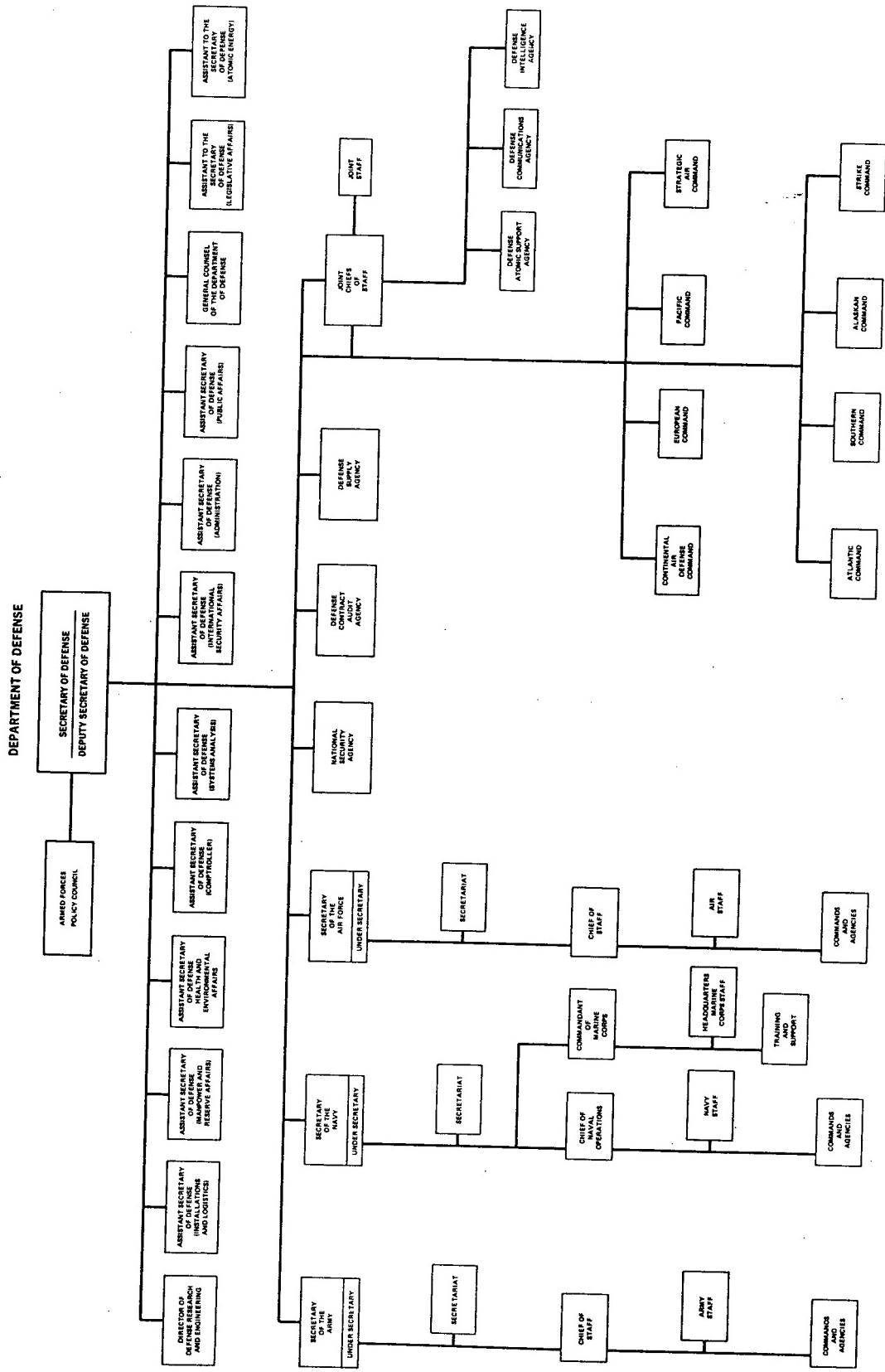
Each of these parallel elements of OSD staff has been delegated responsibilities, including policy formulation, within the assigned area of activity, which is established by a "charter" in the form of a Directive. These "charters" include direct statutory impositions of responsibilities where applicable. Currently, the scope of responsibility for each of these OSD staff elements is couched in language too general either to limit precisely or to define and fix precisely the responsibility for the intended area of cognizance or function.

Policy and guidance directives issued by OSD to subordinate elements of the Department evidence a tendency by several of the parallel elements of the OSD staff to formulate policy and guidance as if its particular function were the principal control element by which the Department is managed. For example, the Draft Presidential Memoranda, prepared by the Office of the Assistant Secretary of Defense (Systems Analysis), before they were discontinued, tended to control through detailed force levels - numbers and sizes of units - manpower levels, numbers of equipments and, indirectly, the dollars consumed. At the same time, the directives from the Assistant Secretary of Defense (Manpower and Reserve Affairs) tend to fix manpower levels and skills to a degree which would impose manpower as the controlling element of force levels, dollars consumed and numbers of equipment. The Assistant Secretary of Defense (Comptroller) manages with dollars, the Assistant Secretary of Defense (Installations and Logistics) with numbers and types of equipment, while the Director of Defense Research and Engineering prescribes the policies for acquiring and applying technology. The result is a multiplicity of largely independent, parallel managements of the Department from the top, which impose a degree of rigidity on operations of subordinate elements of the Department that severely inhibits efficient performance. In addition, the expansion of OSD has been accompanied by an increasing involvement of OSD personnel in executory-type activities of the Department.

The expanding parallel organization of OSD has contributed to the excessive span of control of the Secretary/Deputy Secretary of Defense. Twenty-seven major offices of the Department report directly to the Secretary/Deputy Secretary, and of these, twelve are in OSD. No formal mechanism exists to assure proper coordination among the parallel elements of OSD. This unsatisfactory organizational structure results in frequent contradictions in policy guidance, frictions between the various elements of OSD, and the necessity for extensive and time-consuming coordination with little assurance that it has achieved its purpose.

The lack of convergence of responsibilities for functional areas at an organizational point in OSD below the Secretary/Deputy Secretary level inhibits the flexibility to delegate responsibilities within OSD, for no one below the Secretary/Deputy Secretary level has the requisite breadth of purview or responsibility.

The expansion of OSD into many functionally fragmented compartments and their increasing involvement in detailed executory-type activities has resulted in the establishment of a profusion of management information systems and reporting requirements. The excessive detail and duplication of reporting requirements have generated such a sheer mass of informational detail that relevant and important facts are often obscured. Efforts at



reports control and limitation have proved largely futile and have added to the already significant load and costs of paper work.*

While the process of OSD expansion was occurring, subordinate elements of the Department gradually adjusted. In fact, the diffusion of responsibility and accountability, the freedom to "pass the buck" to the top on hard decisions, and the opportunity to use the extensive coordination process to advance parochial objectives, are circumstances to which many in the Department have adapted comfortably. Understandably, this usually resulted in substantial increases in the workload of staffs at subordinate levels to provide information required by and to counter the arguments made by the expanded OSD staff. On the other hand, despite recent improvements made in the Military Departments in such techniques as systems analysis, there is little to indicate that the Department could accomplish its mission if there were a reversion to the level and type of decentralization of authority which existed earlier.

The lack of responsiveness to the needs and direction of the Secretary of Defense is particularly evident in three closely interrelated functional areas - military operations, intelligence, and communications.

For all its size, the OSD has no staff element with significant purview of the area of military operations, despite the fact that the Secretary of Defense, since the 1958 amendments to the National Security Act, is the crucial link in the chain of command between the Commander-in-Chief and the Unified Commanders.

If the Secretary of Defense is to discharge effectively his responsibilities as a key element of the National Command Authority, - and the alternative of removing him from the chain of command would, in practice, reduce "civilian control" to a fiction - it is clear that he must have an adequate staff for the purpose.

The present arrangement for providing staff support to the Secretary of Defense for military operations is awkward and unresponsive; it provides a forum for inter-Service conflicts to be injected into the decision-making process for military operations; and it inhibits the flow of information to and from the combatant commands and the President and Secretary of Defense, often even in crisis situations.

While the Secretary of Defense is constituted by the National Security Act as the link in the chain of command of combatant forces between the President and the Unified and Specified Commanders, the only military staffs presently available for operations staff work are in the Joint Staff - reporting to the Joint Chiefs of Staff - and in the Military Departments. This anomalous situation has been dealt with by the delegation of responsibility to the Joint Chiefs of Staff by the Secretary of Defense to act as his staff for military operations. To perform this responsibility, the Organization of the Joint Chiefs of Staff was enlarged. In addition, each member of the Joint Chiefs of Staff has retained on his military staff within his individual Service a staff element assigned to military operations which is larger than the authorized size of the entire Joint Staff. These are the staff officers who support their Chief of Service in his role as a member of the Joint Chiefs of Staff. There is abundant evidence that it is in these individual Service staff elements, as much or

*See Defense Directives/Guidance System and Management Information Reports in Chapter III.

more than in the Joint Staff, that issues dealing with military operations and the recommendations of Unified Commanders to the Secretary are screened, analyzed and shaped.

The National Military Command Center (NMCC) is a facility essential to the functioning of the National Command Authority and is manned by elements of the Organization of the Joint Chiefs of Staff; the NMCC, however, is responsive to the Joint Chiefs of Staff, not to the Secretary of Defense and the President.

This lack within OSD of expertise in military operations critically impairs the civilian control of the military establishment. Virtually all of the combat forces of the United States are assigned to the operational control of the Unified and Specified Commands. There is a statutory prohibition against the transfer of forces in or out of one of the Unified or Specified Commands without the specific approval of the Secretary. It is the Secretary of Defense who, subject to the authority of the Commander-in-Chief, provides the direction and control of the Unified Commanders.

The National Security Act, as amended, clearly contemplated a direct relationship between the Secretary and the Unified and Specified Commanders. It is the Operational Commander of the Unified Command who is in the best position - staffed by officers from all Services - to provide military recommendations, alternative courses of actions and assessments of short-term military capabilities to the National Command Authority. A staff, preferably military, is necessary in the chain of command between the Secretary and the Unified Commanders; it is imperative that such a staff be responsive to the Secretary of Defense, rather than to the Joint Chiefs of Staff, and through the Joint Chiefs of Staff to the Military Services.

The absence of a staff element for military operations directly responsive to the Secretary of Defense constitutes a deficiency which can be tolerated only at high risk.

The OSD cognizance of the intelligence area below the level of the Secretary and Deputy Secretary is too narrow, because it is limited in large measure to resource allocation review. The designation of the Assistant Secretary of Defense (Administration) for intelligence responsibility needs expanding to assure sufficient cognizance. In addition, there should be created a point of convergence below Secretary level at which military operations and intelligence policies and activities are considered together as an interdependent entity.

Responsibility for communications matters in OSD has, until recently, been hopelessly fragmented. The establishment of the position of an Assistant to the Secretary (Telecommunications) to exercise comprehensive policy responsibilities for communications is a major improvement. This function is closely intertwined with both military operations and intelligence. Communications, noted here only in connection with its impact on the organization of OSD, is addressed separately in this report.

Executive functions are intermingled in many of the staff organizations in the Department, and the Office of the Secretary of Defense is no exception. To provide clear and distinguishable lines of authority and responsibility, staff functions, which involve policy formulation and monitoring, should not be commingled with executive or operating functions.

The Advanced Research Projects Agency (ARPA) is now an integral part of the OSD

staff, being a part of the Office of the Director, Defense Research and Engineering. ARPA has the characteristics of a Defense Agency, including separate budgeting (at a current level in excess of \$200 million).

Another significant weakness of the OSD organization is the lack of policy guidance, monitoring and evaluation of the test and evaluation function.* This deficiency has contributed to a number of instances of needless dissipation of resources. In connection with test and evaluation, it should be emphasized that responsibilities for any evaluation function must be exercised independently. When they are subordinated to or combined with responsibilities for the development of the item or subject being evaluated, the requisite objectivity is seriously jeopardized.

Still another problem is the commingling of functional assignments in the same office or individual, when the functions are either greatly dissimilar (Administration and Intelligence), or generate conflicting pressures or issues which should be raised to a higher organizational level for resolution, instead of being submerged. As an example of the latter, the co-assignment of functional responsibility for both (a) research and exploratory development, and (b) weapons systems development, makes it possible for the relative balance of effort between the two to be shifted without the issue being addressed at higher organizational levels, as it would have to be if the functions were separately assigned.

The Department of Defense must closely coordinate its activities and policies with numerous other agencies of government, particularly the National Security Council, the State Department, and the Arms Control and Disarmament Agency. In order to do so effectively, it is essential that the Department representatives be vested with the requisite authority to speak for the Department and have sufficient access to information in the Department to deal knowledgeably. All too often in the Department of Defense, this coordination function is, in practice, fragmented. This can result in several Defense Department voices, which may well diverge in direction, and cause confusion with serious consequence. The Office of Assistant Secretary of Defense (International Security Affairs) has the functional assignment for most of the Department's external coordination responsibilities on matters which have political-military significance. Frequently, however, personnel from other elements of OSD are designated on an ad hoc basis to represent the Department on various interagency activities. In addition, the executive levels and functional alignment of the offices of the Defense Department do not mesh with those of the State Department, which, in a bureaucratic interface, can and does cause substantive problems.

The Secretary of Defense does not presently have the opportunity to consider all viable options as background for making major policy decisions because important options are often submerged or compromised at lower levels of the Department.

A need exists for an independent source of informed and critical review and analysis of military forces and other problems – particularly those involving more than one Service, or two or more competitive or complementary activities, missions, or weapons. At present, the Assistant Secretary of Defense (Systems Analysis) is responsible for this important function.

*See Test and Evaluation in Chapter II.

Test and evaluation functions are presently widely scattered, tend not to extend above Service level, and are dominated by Service developer agencies. Because so much of the Department of Defense is involved in or affected by weapon systems acquisition, an improved test and evaluation capability is essential to provide objective test data on the progress and worth of developmental weapon systems. Significantly increased emphasis is needed on operational test and evaluation, particularly on systems and equipment which span Service lines.

The internal auditing effort at OSD level is fragmented and lacks sufficient organizational prestige to provide the coordination, audit coverage, and leadership to achieve its full potential.

The internal auditing effort at the OSD level is carried on by two different groups, both within the Office of the Assistant Secretary of Defense (Comptroller). One group, the Office of Director for Audit Policy, reporting to the Deputy Assistant Secretary (Systems Policy and Information) has responsibility for developing and providing audit policy guidance for all audit organizations in the Department. A second group, called the Office of the Deputy Comptroller for Internal Audit, reports one level higher and provides a quick audit response to matters of special interest to the Secretary of Defense and his staff. This second group is also responsible for audits of programs and procedures which involve more than one military Service or Agency, for audits of the Military Assistance Program, and for audits of certain other Department components.

The Directorate of Inspection Services (DINS), organizationally located in the office of the Assistant Secretary of Defense (Administration), has the responsibility for inspections or surveys of the operational and administrative effectiveness of the Office of the Secretary of Defense, the Joint Chiefs of Staff, the Unified and Specified Commands and the Defense Agencies. DINS also has responsibility for criminal investigation and counter-intelligence activities within the same organizations. The assigned responsibilities of DINS do not include financial and accounting audits.

These functions should be grouped with other evaluation and control functions.

Some of the Department's "credibility gap" with the Congress and the public must be attributed to the fragmented, and often confused, functional assignments of responsibilities within the Department for legislative and public affairs.

At present, there are public affairs and legislative liaison offices within the Office of the Secretary of Defense, each of the Military Departments and some of the Defense Agencies, with no effective mechanism for coordination among them. A great many of the matters with which these offices deal affect and are affected by activities of other organizational elements of the Department. Only the public affairs and legislative liaison activities in the Office of the Secretary of Defense have general cognizance of all activities. Representations by other such offices have the potential to be based on partial or incomplete information.

At the present time, the activities of the Assistant Secretary of Defense (Public Affairs) account for less than one-fifth of the public affairs expenditures of the Department. The lack of coordination of all public affairs activities of the Department causes confusion among the public and in the Congress, and at the same time, inhibits the most effective use of available resources.

The Office of the Assistant to the Secretary of Defense (Legislative Affairs) is less than one-half the size of the smallest legislative liaison office of a Military Department, and only about one-fourth the size of the largest. The necessary flow of information attending the budgetary process would be facilitated by direct contacts between the appropriations committees of Congress and the Comptroller of the appropriate department or agency. The use of legislative liaison services in these budgetary matters, where the Departmental sources of data are few and identified, has greater potential for obstruction than assistance.

Three other areas of significant organizational deficiency in OSD are apparent.

There is no organizational element within OSD with the assigned responsibility for objectively making net assessments of U.S. and foreign military capabilities. Major program and policy decisions in the Department of Defense tend to be based on an assessment of individual factors, such as the apparent threat, the technological capability of the United States and possible opponents, and cost effectiveness criteria. The Defense intelligence community is concerned with foreign developments, but does not make assessments of U.S. capabilities. Threat assessments are made for comparison with the projected capability of some proposed new U.S. development. There is, however, no mechanism within the Department to provide an integrated analysis which systematically places existing or proposed programs in the context of the capabilities and limitations of the United States and its allies versus possible antagonists. The Secretary of Defense should have available, on a continuing basis, the results of comparative studies and evaluations of U. S. and foreign military capabilities, to identify existing or potential deficiencies or imbalances in U. S. military capabilities.

There is no organizational element within OSD that is charged with the responsibility for broadly supporting the Secretary of Defense in long-range planning which integrates net assessments, technological projections, fiscal planning, etc. Force planning is currently initiated by the Joint Chiefs of Staff and the Military Departments within the constraints of fiscal guidance to each Service and for each major mission and support effort. In order to provide an overall balance of forces, to prevent wasteful duplications, and to develop effective but more economical alternatives to those conditioned by traditional approaches of the Military Services, OSD requires an internal long-range planning capability. The development of alternative solutions should include consideration of all relevant political, economic, technological and military factors. To the extent to which such a capability exists in the current OSD organization, it is too fragmented and too limited by the pressure of more immediately urgent assignments to be effective.

No formal mechanism exists within OSD to assure adequate coordination among the various elements of the Department. There is a need for a Coordinating Group in the immediate office of the Secretary of Defense, to assist in coordinating the activities of the entire Department and in the scheduling and follow-up of the various activities.*

In addition to the deficiencies previously mentioned, many of the individual elements of the Office of the Secretary of Defense have become so overstaffed as to reduce their capability. Even with the new functions suggested for OSD, the staff should not total more than 2,000 people.

*See Defense Directives/Guidance System and Management Information Reports in Chapter III.

IV. ORGANIZATION OF THE JOINT CHIEFS OF STAFF AND THE JOINT STAFF

The Joint Chiefs of Staff

With the exceptions of the relatively minor changes in the authority of the Chairman, the reorganization of the Joint Staff in 1958, and the increases in the limitation on the size of the Joint Staff from 100 to 210 officers in 1949, and from 210 to 400 officers in 1958, there have been no significant changes in the Organization of the Joint Chiefs of Staff and the Joint Staff since 1949.

The Joint Chiefs of Staff are still composed of the Chairman, appointed by the President, with the advice and consent of the Senate, from the officers of the regular components of the Armed Forces; the Chief of Staff of the Army; the Chief of Naval Operations; the Chief of Staff of the Air Force; and as a practical matter, the Commandant of the Marine Corps, unless the Secretary of Defense determines that a particular matter under consideration by the Joint Chiefs of Staff does not concern the Marine Corps.

Both the organizational characteristics and the performance capability of the Joint Chiefs of Staff have been sources of concern almost since the inception of the organization.

From an organizational standpoint, concern has been created by the reliance on a "committee" for the performance of the important functions assigned to the Joint Chiefs of Staff. Despite the theories which would depict the Joint Chiefs of Staff as a "corporate" body, the near unanimity of the Joint Chiefs of Staff's formal decisions in recent years, and the statutory instruction to the Chairman to report disagreement of the Chiefs to the Secretary of Defense, the Joint Chiefs of Staff must be characterized as a committee.

The "committee" character of the Joint Chiefs of Staff is accentuated by the dual roles of the members, other than the Chairman of the Joint Chiefs of Staff. Each of the Chiefs must bear the load of responsibility for supervision of his own Military Service and for his duties as a member of the Joint Chiefs of Staff.

The excessive workload occasioned thereby was recognized by the report of the Rockefeller Committee in 1953. In the 1958 amendments to the National Security Act, the Chiefs of Staff of the Army and Air Force, the Chief of Naval Operations and the Commandant of the Marine Corps were authorized to delegate broad responsibilities for supervision of their Services to their Vice Chiefs of Staff. Despite this delegation, the workload of the Joint Chiefs of Staff is still very heavy, and is compounded by the many matters of detail referred to them.

Also, in the 1958 amendments, the Chiefs' authority to "command and supervise" their Services was reduced to the authority "to supervise," and the operational command of combatant forces of all Services was vested in Unified and Specified Commands, responsible directly to the Secretary of Defense and the President. By virtue of the provisions of Department of Defense Directive 5100.1, issued on 31 December 1958, however, the Joint Chiefs of Staff were assigned the duty to serve as advisors and as military staff in the chain of operational command running from the Secretary to the Commanders of the Unified and Specified Commands.

From a practical viewpoint, the roles of the members of the Joint Chiefs of Staff, other than the Chairman, are probably more nearly triple in character than dual. The three roles

are: (1) the Chief's supervision of his Military Service; (2) participation in the advisory and planning functions assigned by statute to the Joint Chiefs of Staff; and (3) participation, by delegation, as a member of the Secretary's staff for matters of operational command.

Many consider the dual or triple roles of the Joint Chiefs of Staff to be a fatal deficiency to the effectiveness of the Joint Chiefs. No matter how hard the Chiefs strive to "rise above the particular views of their respective Services" * and not to "be restricted by Service positions or instructions,"* it is very difficult for them to free themselves from their understandable Service loyalties.

The difficulties of the Joint Chiefs of Staff structure are compounded by other factors: (1) the Joint Staff consists of officers assigned from each Service, and they look to their Service for promotions; and (2) the procedures by which major issues addressed by the Joint Chiefs of Staff, require that the issues first be coordinated by the Joint Staff with each of the Military Services.**

President Eisenhower referred to these difficulties in his message to the Congress on the Defense Reorganization Act of 1958. The President stated: "These laborious processes exist because each military department feels obliged to judge independently each work product of the Joint Staff. Had I allowed my interservice and interallied staff to be similarly organized in the theaters I commanded during World War II, the delays and resulting indecisiveness would have been unacceptable to my superiors."

The increase in frequency of unanimity in the recommendations and advice of the Joint Chiefs of Staff is by no means conclusive proof of subjugation of particular Service views. Such frequency of unanimity can just as cogently support a conclusion that the basis of such recommendations and advice is mutual accommodation of all Service views, known in some forums as "log rolling," and a submergence and avoidance of significant issues or facets of issues on which accommodations of conflicting Service views are not possible.

Arguments for continuation of the military chiefs as members of the Joint Chiefs of Staff do have merit, however. There could be some risk involved in any approach to restructuring the membership of the Joint Chiefs of Staff which might so remove the members from the daily operations of their Departments as to relegate the Joint Chiefs of Staff to an ivory tower.

The fundamental problem with the multiple role of the members of the Joint Chiefs of Staff, we believe, was perceived in the comments of the Rockefeller Committee in 1953. The committee stated:

It is essential to keep in mind that the Joint Chiefs of Staff were established as a planning and advisory group, not to exercise command. The National Security Act emphasized their planning and advisory role. The Committee considers it unfortunate that this concept of the National Security Act has always been obscured in actual practice, even before the meetings in 1948 at Key West and Newport, at which the Secretary of Defense delegated certain command functions to the Joint

*Report of the Rockefeller Committee, 1953.

**The JCS Decision-Making Process is discussed in Chapter III.

Chiefs of Staff.

To clarify the role of the Joint Chiefs of Staff in accord with the basic purposes of the National Security Act, this Committee recommends below that the Key West agreement be revised to remove the command function from the Joint Chiefs of Staff, in order to enable them to work more effectively as a unified planning agency.

The Committee believes that the Secretary of Defense has much to gain from receiving the various views of the military chiefs of the Services, and that it is desirable for the top planning body to continue to include the responsible military chiefs, who will thus have a voice in the JCS planning as well as implementing such planning in their respective military departments.

Despite the many changes, the members of the Joint Chiefs of Staff have retained their involvement, in one or the other of their roles, in operational command matters. Prior to 1953, the Joint Chiefs of Staff designated one of their members as their executive agent to exercise operational command in a specified geographical area. From 1953 to 1958, the Secretary of Defense designated a Military Department as executive agent for a particular unified command and the Service Chief acted for the Secretary of his Military Department, so that for any particular unified command, the chain of operational command ran from the President to the Secretary of Defense to the Secretary of the designated Military Department to the Service Chief to the unified command. The 1958 change was intended to shorten and clarify the chain of operational command, by making the channel run from the President to the Secretary of Defense directly to the unified command. Because of the delegation from the Secretary of Defense to the Joint Chiefs of Staff to act as military staff in the chain of command to the unified commands, this change proved to be largely one of form, rather than substance, for it merely "changed the hat" the Chief of Service wears during his involvement in military operational matters.

The numerous functions now assigned to members of the Joint Chiefs of Staff impose an excessive workload and a difficult mix of functions and loyalties. Some of these functions must consequently suffer, and the evidence indicates both the strain on individuals who have served in such capacity and a less than desirable level of performance of the numerous functions assigned. This result has occurred despite the outstanding individual ability and dedication of those who have served on the Joint Chiefs of Staff and despite the attempts to shift a portion of the load from the Chiefs of Service to their Vice Chiefs. The difficulty is caused by the system, not the people.

The excessive workload of the Joint Chiefs of Staff has also resulted in a perceptible shift of responsibilities for the performance as staff of the Secretary of Defense in operational control of combatant forces from the Joint Chiefs of Staff to the Chairman of the Joint Chiefs, acting individually and "keeping the members of the Joint Chiefs of Staff informed." This trend, while usually increasing efficiency, imposes a severe workload on the Chairman, and does not appear entirely consistent with either the statutory prohibition against the Chairman exercising command functions or the repeated rejection by the Congress of the single Chief of Staff concept.

Of the varied functions assigned to the Joint Chiefs of Staff, those involving operational command are least compatible with the organizational character of the Joint Chiefs of Staff. A committee is inhibited in its performance of any function by its very nature, but it is most deficient as a decision-mechanism in matters which are time-critical, such as

operational control of combatant forces.

The recommendation of the Rockefeller Committee to eliminate the Joint Chiefs of Staff from duties involving operational command of combatant forces is as well taken today as in 1953, if not more so, but this time the change should be made in such a clear and unequivocal way that it cannot be circumvented.

To other duties of the Joint Chiefs of Staff have been added the responsibility for certain Defense Agencies created since 1958, namely, the Defense Atomic Support Agency (DASA), the Defense Communications Agency (DCA), and the Defense Intelligence Agency (DIA). The exercise of administrative control and guidance of these Defense Agencies not only adds to the already excessive workload of the Joint Chiefs of Staff, detracting even further from their capability to perform their statutorily assigned missions, but also detracts from the effective and efficient performance of some of these Agencies.*

The Joint Chiefs of Staff could more effectively perform their important statutory role as principal military advisors to the President and the Secretary of Defense if they were relieved of the necessity of performing delegated duties in the field of military operations and Defense Agency supervision.

This would also have the advantage of terminating much of the involvement of the Military Departments in the command chain of combatant forces, which results from the dual role of the Military Chiefs of Services as members of the Joint Chiefs of Staff. It would also negate much of the argument that has been advanced for having the Joint Chiefs of Staff consist of different officers from the Chiefs of the Services (the "two-hatted" role).

The Joint Staff

The Joint Staff is placed by statute under the Joint Chiefs of Staff and is limited in size, currently to 400 officers.

These statutory limitations have proved to be of no practical consequence, deterring neither the growth past the magic number of 400 officers serving on the central military staff, nor the creation of additional military staff. With the apparent, but statutorily silent, acquiescence of all concerned, including the Congress, the limitations of the statute have been circumvented by the creation of an entity called the "Organization of the Joint Chiefs of Staff."

The title, "the Organization of the Joint Chiefs of Staff" was used to include the Joint Chiefs of Staff, the Joint Staff and various committees formed by the Joint Chiefs of Staff prior to 1953. These "committees" were, for the most part, disestablished effective June 7, 1958, in response to President Eisenhower's message to the Congress on defense reorganization transmitted on April 3, 1958. Four committees not so disestablished were redesignated in name from "Committee" to "Council" or "Group" for compliance in form, if not in substance.

Despite the "elimination" of the committees included in the Organization of the Joint

*The organization of these Defense Agencies is addressed later in this Chapter.

Chiefs of Staff, the number of personnel serving as staff and staff support for the Joint Chiefs of Staff increased from approximately 486 in 1958 to 2,145 in 1969, of which some 900 are military officers. The size of this organization is projected to diminish to some 1,996 in 1970. The "staff" character and its interrelationship to the officially designated Joint Staff is in no way disguised nor camouflaged, and nothing surreptitious can or should be implied from its constitution. The official Joint Staff, maintained with the 400 officer-size limitation is organized under five directorates and one office of Special Assistant as follows: J-1 (Personnel), J-3 (Operations), J-4 (Logistics), J-5 (Plans and Policy), J-6 (Communications-Electronics), and the Special Assistant for Counterinsurgency and Special Activities. In the overall Organization of the Joint Chiefs of Staff, but outside the officially designated Joint Staff, are a large number of staff elements, variously entitled Directorates, Agencies, Special Assistants, etc., all of whom report either through the J-3 (Operations), the J-5 (Plans and Policy), or directly to the Director of the Joint Staff, the same as do elements of the official Joint Staff.

Less obvious "extensions" and "additions" to the Joint Staff also exist. For instance, the Defense Atomic Support Agency (DASA) performs the staff function for maintaining inventory control of nuclear weapons, and in fact, an element of the DASA staff is located contiguous to the National Military Command Center, operated by the Organization of the Joint Chiefs of Staff. Also, the some 400 or more personnel, a number of whom are military officers, working in the National Military Command System Support Center, are assigned to the Defense Communications Agency.

Size alone, nor even a substantial and continuing growth of staff, does not provide evidence of a deficiency in organizational composition or performance. Nevertheless, such artificial structuring of organization, in an effort to circumvent arbitrary limitations, however benign because of the passage of time, can hardly fail to perform less adequately than an organization functionally structured for efficiency of performance.

The Organization of the Joint Chiefs of Staff provides no significant mechanism for corporate memory, and possesses inadequate technical and professional analytical capability. Constituted as it is of military officers who serve one, or at most two tours of duty in the Organization of the Joint Chiefs of Staff, it lacks an experience recall capability which would prevent or minimize recurrence of past mistakes. This deficiency cannot be remedied by the acquisition of data storage and retrieval capabilities made possible by computers. Some individual must recognize the familiar circumstances of earlier experience to indicate that the recorded data connected with earlier history can provide guidance on current problems. The absence of corporate memory can be minimized by changes in the rotation and promotion policies of the Military Services to permit the retention of people in the organizational structure for substantially more than two, three or four years. There is, of course, no prerequisite for corporate memory capability that the persons so retained be military officers; they could just as well be civilians.

V. ORGANIZATION OF THE MILITARY DEPARTMENTS

The organization of the Secretariats of the Military Departments can be evaluated only against the background of the evolving role and function of the Military Department Secretary.

Unquestionably, the role and function of the Secretaries of the Military Departments have changed. Three principal circumstances have provided the impetus for the evolution of

their role and function: (1) the vesting and increase of authority in the Secretary of Defense to provide coordinated control and direction of planning and structuring of the military establishment; (2) the removal of the Military Departments, including the Secretaries, from involvement in operational control of combatant forces; and (3) the marked increases in complexity and costs – and budgets – for weapon systems the military forces now require for execution of their assigned missions. The Secretary must play a difficult dual role of being at once (a) principal advisor and assistant to The Secretary of Defense in the operation of his particular Military Department, and (b) the representative of his Military Department in the councils of the Secretary of Defense.

The office of Secretary of a Military Department has become increasingly demanding of administrative and managerial ability to: (1) cope with the multiplication of complexity and costs of developing and acquiring weapons systems; (2) acquire personnel in the quantity and quality required to maintain and operate the weapons; (3) train military personnel to the high level of skills necessary to function in areas of advanced technology and sensitive operations; and (4) retain enough of those so trained to justify the training investment; but not so many as to impair the vigor essential to successful military operations, which only youth can provide.

No private corporate executive in the world has the managerial responsibility in terms of manpower, budget, variety or complexity of operations equal or approaching that resting on the shoulders of a Secretary of a Military Department.

Within each of the Military Department Secretariats there is one Under Secretary, a General Counsel, and four Assistant Secretaries, each of the latter being functionally assigned for Research and Development, Manpower and Reserve Affairs, Installations and Logistics, and Financial Management. The functional designation of the Assistant Secretaries, other than for the Assistant Secretary for Financial Management, is not made by statute, but by internal organizational decision.

Below the predominantly civilian Secretariats which report to the Secretary/Under Secretary of the Military Departments, are the military staffs which report to the Chief of Staff, Chief of Naval Operations, or the Commandant of the Marine Corps, as the case may be.

Each of the Military Departments has established organizations which are direct extensions of the Departmental staffs. Each of these organizations reports to an element of one of the Departmental staffs, and performs functions in direct support of that staff element. Many of these support organizations are physically located with the staff elements which they support. When such support personnel are included, the total staff sizes of the Military Departments are roughly comparable.

The trend in sizes of the Washington Headquarters' staffs (including support) of the Military Departments has, perhaps surprisingly, remained relatively level or has slightly declined during the 1960s. There has, however, been a marked shift of personnel from the "staff" category to the "support" category where it is less visible. Particularly is this noticeable in the Department of the Air Force. Although this trend may be a reflection of changing management and organization philosophies, the lowered visibility factor poses an organization problem in itself.

All evidence indicates that the sizes of Headquarters' staffs in the Military Departments

are excessive to what is required for efficient performance of assigned functions. Functional analysis of these staffs reveals an astonishing lack of organizational focus and a highly excessive degree of "coordination," a substantial portion of which entails the writing of memoranda back and forth between lower echelons of parallel organizational elements and which serves no apparent useful or productive purpose.

The Military Staffs of the Services have accumulated a number of line type activities, called "Class II Activities" by the Army, "Field Extensions" by the Air Force, and "Commands" and "Bureaus" by the Navy, and distinguishable by the fact that they are commanded by a member of the staff of the Chief of the Service.

The organizational placement of these activities, which presently number about 700 and contain about 173,000 people, is inconsistent with good management practice and they should be assigned to commands which are in the line of "supervision" of Service channels and divorced from direct supervision by the Service Headquarters' staffs.

Several factors of organization and manning in the Washington Headquarters' staff of the Military Departments are particularly significant.

As noted above, there are five senior executive level positions in the Secretariats of the Military Departments below the Secretary/Under Secretary level. The ratio of personnel supervised by these officials to total staff personnel in the Secretariat is surprisingly low. In the Army Secretariat, these five senior officials supervise the work of only 171 out of approximately 1,000; in the Navy, 124 out of some 1,900; and in the Air Force, only 169 out of some 524. More effective utilization could be made of the Assistant Secretaries who are not functionally designated by statute, should their roles not be restricted by their present functional assignments, and their number could be reduced from three to two.

There also appears to be substantial duplication in all Military Departments between the Secretariat staffs and the military staffs.

The duplication can be illustrated by an examination of the functions of the Financial Manager/Comptroller in the several Military Departments.

Two statutory provisions relating to these functions are relevant. The provisions are separately stated, but identical for each Military Department in 10 U.S.C. sec 3014 (Army), sec 5061 (Navy), and sec 8014 (Air Force). These statutes provide, in part:

"There are a Comptroller of the (Army-Navy-Air Force) and a Deputy Comptroller of the (Army-Navy-Air Force) in the Department of the (Army-Navy-Air Force). The Secretary may appoint either civilian or military personnel to these offices. If either the Comptroller or the Deputy Comptroller is not a civilian, the other must be a civilian.

. . . "The Comptroller is under the direction and supervision of, and is directly responsible to the Secretary of the (Army-Navy-Air Force), the Under Secretary or an Assistant Secretary. However, this subsection does not prevent the Comptroller from having concurrent responsibility to the (Chief of Staff-Chief of Naval Operations), (Vice Chief of Staff-Vice Chief of Naval Operations), or a (Deputy Chief of Staff-Deputy Chief of Naval Operations) if the Secretary so prescribes."

The Departments of Army and Air Force, acting under these provisions, each has an office of the Assistant Secretary (Financial Management) in the Secretariat reporting to the Secretary/Under Secretary, and a Comptroller located on the military staff reporting to the Chief of Staff. The Navy has combined the functions of Comptroller in one office, however. The feasibility, and avoidance of duplicative assignment of functions, of this combination is demonstrated in Figure 1, which is a comparison of Comptroller-type functional assignments in the three Military Departments and the Office of the Secretary of Defense.

As Figure 1 illustrates, duplication of assignments of comptroller-type functions between the Assistant Secretary (Financial Management) and the military comptroller in the Department of Army and the Department of Air Force are numerous. An analysis of functions indicates that performance of these functions by the Assistant Secretaries (Financial Management) and the Comptrollers in the Army and Air Force approach being equally duplicative.

The comptroller function was chosen for illustration because it is the one function most nearly combined in the Secretariat and military staff, and did, therefore, present the opportunity for contrast. In the functional areas of the other three Assistant Secretaries, there has been little consolidation of functions between the Secretariats and military staffs.

In functional areas other than those assigned the four Assistant Secretaries, there have been functional consolidations between the Secretariats and the military staffs which demonstrate the feasibility of such management economies. In all the military Departments, the public information function has been largely consolidated: in the Secretariat in the Navy and Air Force; and in the military staff in the Army. The legislative liaison function is consolidated in all Military Department Secretariats. In the Department of Navy, where the Secretariat has purview of both the Navy and Marine Corps, the Secretariat performs the staff function for civilian personnel Department-wide, while staff cognizance of military personnel is allocated to the Navy and Marine Corps military staffs.

The internal audit groups of the three Military Departments are largely autonomous. There is relatively little interchange or contact among these internal audit groups. The hiring, training, and assignment of audit personnel to specific tasks are handled by each Military Department or Agency with a minimum of guidance or direction from external sources.

The internal audit organizations of the Army and the Navy are organized along similar lines, with relatively large regional, area, or resident offices located throughout the United States and overseas. The internal auditors of the Air Force, unlike those of the Army and the Navy, are stationed at numerous air bases and installations as resident auditors. This results in a wide dispersion of audit personnel in small, relatively permanent groups typically consisting of five or six persons.

While a single internal audit agency in the Department of Defense would permit a more efficient supervisory and management structure, provide more attractive career opportunities for professional personnel, and provide better coordination and control for the Secretary of Defense, it is, on balance, more desirable to continue to provide each Military Department with an internal audit capability of its own to monitor the attainment of its own objectives.

In 1961 certain responsibilities for Civil Defense contained in the Federal Civil Defense

FIGURE 1 -- COMPARISON OF SUBJECTS ADDRESSED BY COMPTROLLERS

	<u>SUBJECTS ASSIGNED IN INTRA-DOD DIRECTIVES</u>					
	OSD <u>a/</u>	ARMY		NAVY		AIR FORCE
		COMPT	ASA(FM) <u>b/</u>	COMPT & ASN(FM) <u>c/</u>	COMPT	ASA(FM) <u>d/</u>
<u>PRESCRIBED IN US CODE</u>						
Budgeting		x	x	x	x	x
Accounting		x	x	x	x	x
Progress and statistical reporting	x	x	x	x	x	x
Administrative organization structure	x ^{e/}	x	x	x	x	
Managerial procedures, relating to budgeting, accounting, progress and statistical reporting and internal auditing	x	x	x	x	x	
Internal audit	x			x	x	
<u>ADDITIONAL SUBJECTS PRESCRIBED IN MILITARY DEPARTMENT AND OSD DIRECTIVES</u>						
Prices for interservice sales	x					
Auditing		x	x	x	x	x
Finance, including disbursement and collection of funds		x		x	x	x
Contract audit	x					
Reports control	x					
Cost analysis	x	x		x	x	
Fiscal	x	x		x		
Management systems and improvement	x	x			x	
Financing of contracts	x	x		x	x	x
Data automation (ADP)	svc		x	partial	x	x
Management information & control systems		x	x	x	x	x
Claims		x	x			
Reports of survey		x	x	x		
Contracts for management studies/services		x			x	
International balance of payments	x	x		x	x	
GAO criticism	x			x	x	x
Collecting debts from defense contractors (operational function)				x	x	
Command of specified field activities or a lower staff	x			x	x	x

a/ Department of Defense Directive 5118.3, January 1966.

b/ Army Regulation 10-5, July 1968, para 2-5 and 2-27.

c/ SECNAVINST 5430.7H, April 1968, para 5a, and Comptroller Orgn Manual 5450.1A (draft).

d/ Air Force Hq Pamphlet 20-1, October 1967, pp. 9, 77-94, and 308.

e/ Restricted to organizations involving programming, budgetary and fiscal matters.

Act of 1950, as amended, were assigned to the Secretary of Defense by Executive Order 10952. These responsibilities are currently assigned to the Department of the Army.

The Office of Civil Defense (OCD), located in the Department of the Army Secretariat, is essentially an independent operating activity.

The Federal Civil Defense Act, as amended in 1958, includes in the Declaration of Policy the following:

"It is the policy and intent of Congress to provide a system of Civil Defense for the protection of life and property in the United States from attack. It is further declared to be the policy and intent of the Congress that the responsibility for Civil Defense shall be vested jointly in the Federal Government and the several States and their political subdivisions. The Federal Government shall provide necessary direction, coordination and guidance; . . . and shall provide necessary assistance as herein authorized."

Except for a period in 1962-1963 when the fallout shelter program was given a high priority, the Civil Defense function has apparently been given little emphasis. There has been, since 1961, considerable discussion about the effects of dividing the Civil Defense responsibilities between the Executive Office of the President and the Department of Defense. This question is presently being addressed by the Executive Office of the President. The mission of OCD is also being reviewed.

The present mission of OCD in the Department of the Army is essentially limited to the development and execution of a fallout shelter program and a communications and warning capability. The staff of OCD is divided roughly equal between the Department of Army Headquarters and the OCD Regional Offices which work directly with the Civil Defense organizations of the States and their political subdivisions. If, as a result of the present review of Civil Defense by the Executive Office of the President, the Secretary of Defense continues to be delegated responsibilities for Civil Defense, the OCD should not continue as a part of the Department of the Army Secretariat. The OCD is a line, not a staff, activity. Further, its mission is sufficiently different from, and independent of, the missions of the Military Departments that it should be established as an independent defense agency.

The Army has been delegated the responsibility for contingency planning related to civil disturbances in the United States and acts as Executive Agent in the operational command chain in the employment of forces in such disturbances. This delegation is inconsistent with normal command arrangements and the spirit, if not also the letter, of the Defense Reorganization Act of 1958. This responsibility should be assigned to a combatant command.

There is another area of duplication which arises from activities throughout the Washington Headquarters' elements of the Department of Defense, and particularly in connection with those activities physically located in the Pentagon. To a major extent, each Headquarters so collocated has its own support organization to handle furnishings, supplies, mail distribution, correspondence control, etc. In some of these activities - such as mail distribution and correspondence control* - this duplication causes hopeless inefficiencies.

*Detailed staff studies of mail handling and correspondence control problems are appended to this report.

The staffs of the Military Departments are not properly organized to effectively and efficiently perform their assigned functions. In addition to the deficiencies previously addressed, many of the individual staff elements have become so large as to reduce their capability. The Secretariats and Service staffs should be integrated to the extent necessary to eliminate duplication; the functions related to military operations and intelligence should be eliminated; operational-type functions, e.g., personnel operations, should be transferred to command organizations; and the remaining elements should be reduced by at least 30 percent. A study of the present staffs indicates that the Secretariats and Service staffs combined should total no more than 2,000 people for each Department.

VI. ORGANIZATION OF THE DEFENSE AGENCIES

The National Security Act of 1947, as amended, gives the Secretary of Defense the responsibility and the authority to provide for the performance of any non-combatant supply or service activity common to more than one military department by one agency (or such other organizations as he considers appropriate), whenever he determines it will be more effective, economical, or efficient.

There are presently five Defense Agencies: Defense Atomic Support Agency (DASA); Defense Communications Agency (DCA); Defense Intelligence Agency (DIA); Defense Supply Agency (DSA); and Defense Contract Audit Agency (DCAA). The first three report to the Secretary of Defense through the Joint Chiefs of Staff, the other two report directly to the Secretary.

An examination of the documents and studies which led to the creation of the Defense Agencies reveals the existence of no general criteria for the establishment of such an entity, except the existence of a function common to more than one Military Department. There exist, and existed prior to the creation of the first Defense Agency, innumerable non-combatant functions common to more than one Service. Among such functions for which Defense Agencies have not been created, but where significant economies might result from consolidation, are: (1) Automatic Data Processing Services; (2) Medical, dental and hospital services; (3) Transportation of materials, movement of household goods; (4) Personnel security investigations; (5) Aircraft and aircraft engine depot services; (6) Recruiting; (7) Test and evaluation; and (8) Mapping, Charting and Geodesy.

An alternative to the Defense Agency for consolidation of common non-combatant functions is the designation of one Military Department as "Executive Agent" to perform such functions for all military services. The Military Airlift Command operated by the Department of the Air Force as Executive Agent, and industrially funded* to serve all military users, is one example of the use of this mechanism. For a comparatively small function, this mechanism has the advantages of minimizing the incurrence of the larger administrative overhead associated with Defense Agencies, and of utilizing established organizational structures for external supervision and monitoring of the function.

The organizational placement of Defense Agencies within the Department has caused problems. For those Agency heads reporting directly to the Secretary/Deputy Secretary of

*An industrially funded activity is one which operates with a working capital fund, from which operating expenses are paid, and which is reimbursed through charges to benefiting organizations.

Defense such as the Director, Defense Supply Agency, there is a less than desirable degree of supervision due to the excessive span of control imposed on the Secretary/Deputy Secretary of Defense by the existing organizational structure. The Joint Chiefs of Staff, through which three Defense Agencies report, has not proved to be the type of organization which can best provide guidance free of the competition of the military services among themselves and between the military services and the Defense Agencies.

From an organizational standpoint, three of the Defense Agencies present problems - DASA, DCA and DIA.

Defense Atomic Support Agency

DASA is the successor to the Armed Forces Special Weapons Project (AFSWP), which in 1947 became the organizational home of those military personnel and some civilians previously involved in the Manhattan Project, which developed the atomic bomb. AFSWP was created to discharge for all military services all support functions relating to nuclear weapons, and as such, was responsible to all three military services. In 1959, DASA was established as a Defense Agency, with similar functions, reporting on general matters through the Joint Chiefs of Staff to the Secretary of Defense, but receiving supervision on matters relating to research, development, test and evaluation from the Director, Defense Research and Engineering, and for matters relating to liaison with the Atomic Energy Commission and other special activities, from the Assistant to the Secretary of Defense (Atomic Energy).

The conditions which led to the assignment of most of the functions initially assigned to DASA no longer exist. Each of the Military Services has acquired and is satisfactorily performing many functions relating to nuclear weapons, such as storage, transportation, inspection, maintenance and training of personnel. In some instances, such as storage, Military Services are doing it more efficiently than does DASA. DASA's storage function is currently being transferred to the Services.

It appears that DASA retains two remaining unique capabilities - one related to the design of nuclear weapons effects tests, and the other in nuclear weapons stockpile management.

Weapon design tests are designed and conducted by the Atomic Energy Commission pursuant to requirements submitted by the Military Services for warhead developments. DASA, however, receives and consolidates requirements for weapon effects tests from the Military Services and designs the appropriate tests. The designs for weapon effects tests, after review in OSD, are submitted to the Atomic Energy Commission which provides nuclear devices specified in the test designs and actually conducts the tests, using equipment supplied by the Military Services.

In its responsibility for nuclear stockpile management, the role of DASA is logically one of coordination and management. In its support of the JCS, however, DASA provides operating elements that are integral to the National Military Command System. In addition to maintaining information on the status and location of nuclear weapons, these elements have responsibility for collecting and displaying information about the Single Integrated Operations Plan both as to the plan and the results of its execution. They also have the responsibility for other functions that fall entirely within the responsibilities of the JCS in their delegated role as military operations staff for the Secretary of Defense.

DASA also now performs a number of functions which could be more appropriately assigned elsewhere, such as the administration of the base hospital at Sandia Base, (and many similarly inappropriate activities at the same location), and the Armed Forces Radiobiology Research Institute at Bethesda, Maryland, which is a joint medical research facility.

The scope of the two unique functional capabilities of DASA no longer justifies the continuation of the administrative overhead load inherent in a Defense Agency.

Defense Communications Agency

DCA was established in 1960 to exercise operational control and supervision of the Defense Communications System (DCS) which is comprised of all long-haul, point-to-point communications facilities of the Department of Defense. After World War II, each of the Military Departments developed its own worldwide communications system to carry out the global activities of its mission. As the requirements and expenditures for separate long-haul systems rose through the fifties, economic and other pressures mounted for the creation of one entity to engineer and manage these increasingly expensive systems for the common use of all Defense elements. DCA was the response to these pressures.

DCA is charged with responsibility to: (1) exercise management control and operational direction over the DCS; and (2) exercise management control over R&D, planning, engineering, and programming of the activities of the Military Departments, Unified and Specified Commands, and Defense Agencies which support the DCS.

The organizational problems connected with the telecommunications functions* are not located internally to DCA, but derive from the obscured lines of demarcation between the functions assigned to DCA and those retained in the Military Services, and the ineffectively coordinated direction and policy control emanating from the various elements of OSD and filtered through the Joint Chiefs of Staff to DCA. The recent establishment of the Office of the Assistant to the Secretary of Defense (Telecommunications) and the assignment to this office of broad policy and directive authority in the telecommunications field should alleviate a large portion of the problems now existing.

Defense Intelligence Agency

The Defense Intelligence Agency (DIA) was established in 1961 in an effort to create a mechanism to solve the problems presented by the disparate intelligence estimates being produced, and the duplicative efforts being engaged in by the Military Departments.

DIA is assigned the responsibility for:

1. The organization, direction, management, and control of all Defense intelligence resources assigned to or included within the DIA.
2. Review and coordination of those intelligence functions retained by or assigned to the Military Departments.

*Telecommunications problems are discussed in Chapter V.

3. Supervision of the execution of all approved plans, programs, policies, and procedures for intelligence functions not assigned to DIA.

4. Obtaining the maximum economy and efficiency in the allocation and management of Defense intelligence resources.

5. Responding directly to priority requests levied upon the DIA by the United States Intelligence Board (USIB).

6. Satisfying the intelligence requirements of the major components of the Department.

Its charter reveals that DIA was originally intended to (1) provide for the assembly, integration and validation of all Defense intelligence requirements, the policies and procedures for collection, and the assignment of relative priorities to the requirements, and (2) develop and produce all the Department's intelligence estimates and information and contribution to the National Estimates for the USIB. It was intended that the Military Departments would retain the resources to collect and process intelligence information, under the supervision of DIA.

Concurrent with the establishment of DIA, the Directorate of Intelligence (J-2) of the Joint Staff was disestablished, and its functions assigned to the Director of DIA. The established reporting line for DIA was and is through the Joint Chiefs of Staff to the Secretary of Defense.

The principal problems of the Defense Intelligence Agency can be summarized as too many jobs and too many masters.

Two areas of conflict are apparent. In addition to his administrative responsibilities as the Director of a Defense Agency, the Director of DIA must provide the staff assistance on intelligence matters to the Secretary of Defense and must also provide staff assistance on intelligence matters to the Joint Chiefs of Staff. On many intelligence issues, particularly procedural issues with jurisdictional implications, the positions of the Secretary of Defense and the Joint Chiefs of Staff can be and often are diverse. As staff officer and advisor to both, the Director of DIA finds himself in an impossible position. The result can be delays in staff work that, in turn, result in unresolved issues of significant moment.

The second area of conflict is between DIA and the Military Services. DIA is charged with responsibilities to supervise the collection and processing of intelligence by the Military Services, specifically by prescribing procedures, allocating requirements, and reviewing the total intelligence programs of the Services. Yet the Director of DIA reports directly to the Joint Chiefs of Staff, comprised in four-fifths majority by the Senior Officers of the four Military Services for whose intelligence programs the Director of DIA is charged with the responsibility to provide coordinated supervision. In addition, the Services determine which officers of what qualification are assigned to DIA, and the services also retain the power of promotion and future assignment over those so assigned. In consequence, the "supervision" by DIA of intelligence collection and processing by the Services, and DIA's fiscal control is largely impotent and its visibility of the Service intelligence programs obscured.

While the DIA was established primarily to consolidate the intelligence activities at the Washington level, each Military Department currently has a larger intelligence staff than it

had before the creation of DIA. Each departmental staff is still engaged in activities clearly assigned to DIA. The Military Departments justify these activities on the basis that DIA does not have the capability to provide the intelligence they need. It is paradoxical that DIA cannot develop a capability to perform its assigned functions while the Military Departments, which provide a large proportion of DIA personnel, maintain the required capability to produce intelligence estimates - or more properly, threat assessments - which are crucial to decisions on weapon systems research and development. DIA is charged with the responsibility, but has never been organized to discharge it. The Military Departments produce such estimates and the Air Force, at least, intends to enlarge its capability.

Each Military Department has a large organization devoted primarily to Mapping, Charting, and Geodesy (MC&G) activities: The Army Topographic Command of the Corps of Engineers; The Naval Oceanographic Office under the Oceanographer of the Navy; and The Aeronautical Chart and Information Center reporting to the Chief of Staff of the Air Force.

DIA attempts to coordinate these activities to eliminate duplication and set priorities for production. However, DIA coordinates through the intelligence elements of the Departmental staffs and only the Air Force MC&G agency is within the staff purview of its intelligence staff. The Army and Navy MC&G elements are in agencies which are not a part of the intelligence community.

While MC&G activities make use of intelligence information, they are not intelligence activities. Savings can be accomplished in personnel and equipment by consolidating the three Service MC&G agencies in a single agency reporting to the Secretary of Defense.

VII. ORGANIZATION OF THE COMBATANT COMMANDS

The Combatant Forces of the United States and their direct support are assigned to eight Unified and Specified Commands: Alaskan Command, Atlantic Command, Continental Air Defense Command, European Command, Pacific Command, Southern Command, Strategic Air Command, and Strike Command.

This Unified and Specified Command structure has evolved during the period since World War II. As now designated and assigned the Alaskan Command is the oldest of the existing Unified Commands, dating from January 1, 1947, and Southern Command the newest (June 1963).

The Statutory authority for the establishment, composition, mission assignment, assignment of forces, administration and logistics dates from 1958, and provides:

"With the advice and assistance of the Joint Chiefs of Staff, the President, through the Secretary of Defense, shall establish unified or specified combatant commands for the performance of military missions, and shall determine the force structure of such combatant commands to be composed of forces of the Department of the Army, the Department of the Navy, the Department of the Air Force, which shall then be assigned to such combatant commands by the departments concerned for the performance of such military missions. Such combatant commands are responsible to the President and the Secretary of Defense for such military missions as may be assigned to them by the Secretary of Defense, with the approval of the President. Forces assigned to such unified combatant commands or specified

combatant commands shall be under the full operational command of the commander of the unified combatant command or the commander of the specified combatant command. All forces not so assigned remain for all purposes in their respective departments. Under the direction, authority, and control of the Secretary of Defense each military department shall be responsible for the administration of forces assigned from its department to such combatant commands. The responsibility for the support of the forces assigned to combatant commands shall be vested in one or more of the military departments as may be directed by the Secretary of Defense. Forces assigned to such unified or specified combatant commands shall be transferred therefrom only by authority of and under procedures established by the Secretary of Defense, with the approval of the President."

The existing structure consists of functional* and area** commands, and a mixture of both***. Command is distributed among the Military Departments as follows: Army - European Command (EUCOM), Southern Command (SOUTHCOM), and Strike Command (STRICOM); Navy - Pacific Command (PACOM), and Atlantic Command (LANTCOM); and Air Force - Strategic Air Command (SAC), Continental Air Defense Command (CONAD), and Alaskan Command (ALCOM). Interestingly, very few Navy forces are assigned to Unified Commands in which the Unified Commander is not a Naval Officer, except for the 6th Fleet assigned to EUCOM. Equally significant, all of the Army forces in PACOM, which are commanded by a Naval Officer, fall under sub-unified commands commanded by other than Naval officers and the overwhelming proportion of Army forces in PACOM fall under sub-unified commands which are commanded by Army officers.

The makeup of the Unified Command structure is significantly influenced by various mutual security agreements and arrangements to which the United States is a party. The most influential is the North Atlantic Treaty Organization (NATO), and of another type is the United Nations Command, Korea. The United States Unified Command structure is intended to mesh with the "combined" command structure which would exercise "operational command" of the multilateral forces should combined operations be undertaken.

The missions assigned to the Unified and Specified Commands, while encompassing a host of varied tasks, may be generally summarized in five categories:

- (1) Combat operations as required, either strategic or non-strategic, across the whole spectrum of intensities;
- (2) Security of a specified geographical area, ranging from protecting and evacuating U.S. citizens to countering an armed attack;
- (3) Preparation of plans for a wide variety of possible combat operations (contingency planning);
- (4) Direction of military assistance matters; and

*Continental Air Command and Strategic Air Command.

**Southern Command.

***Alaskan Command, Atlantic Command, Pacific Command, European Command, and Strike Command.

(5) Providing U.S. military representation and participation in multilateral treaty organizations.

Serious questions persist about the suitability of the Unified Command structure for the conduct of war, either general or localized, for the conduct of peacetime activities, or for the handling of recurring crises. An examination of the primary missions of the present commands and some of the specific problems indicates that the present structure is not effective, and probably would have to be radically changed to support a major war effort.

CONAD is charged with responsibility for the defense of the North American Continent. Although CONAD prepares plans for such defense, strategic offensive forces operate in the same geographic area under SAC. The Commander-in-Chief, CONAD also serves as Commander of the North American Air Defense Command, which is a joint United States - Canadian Command.

SAC, the only Specified Command, is charged with the primary responsibility for the strategic offensive mission. However, since the deployment of Polaris submarines, a strategic offensive mission has been assigned to the Atlantic, European and Pacific Commands. The Joint Chiefs of Staff have established a joint planning group to effect better coordination in target planning and assignment. The Commander-in-Chief, SAC also serves as Director of this joint planning activity.

Each of the other six Unified Commands has a mission oriented to a designated geographic area, and each Unified Commander is charged with preparing contingency plans for his area. The Unified Commander, however, is not given adequate guidance as to what forces will be available to him over and above those assigned. As a result, the plans of two or more Unified Commands for contingencies which can materialize simultaneously, may well be based on the assumption that each will employ the same forces. The Joint Chiefs of Staff review the contingency plans of the Unified Commands, but do not effectively resolve the basic problems of conflict in force requirements.

An example of the confusion that can be created in the present Command structure occurred in the Arab-Israeli War of 1967, when the U. S. Military was directed to evacuate U. S. Nationals. The crisis was in the area of responsibility of STRICOM; however, a decision was made to perform the evacuation with airlift assets assigned to EUCOM. In anticipation of commanding the evacuation, STRICOM sent a command aircraft with a command and control element aboard to Europe. Because of indecisions as to whether STRICOM should command the evacuation, the aircraft was first stopped at the Azores then was allowed to proceed to Greece, at which point it was decided that EUCOM should command. The STRICOM Command aircraft was assigned to EUCOM, and EUCOM was directed to execute the STRICOM evacuation plans.

The Alaskan Command is assigned a geographic area of responsibility, but the principal mission of the Commander-in-Chief, ALCOM is not as a Unified Commander, but rather as a subordinate commander under NORAD in the defense of the North American Continent.

The Atlantic Command has no Army or significant Air Force forces assigned (one small Air Force unit, designated Iceland Defense Force) and tends to be oriented towards a general war maritime role as distinguished from a perhaps more probable contingency involving land operations in its geographic area of responsibility. The Commander-in-Chief, LANTCOM (CINCLANT) is also the Supreme Allied Commander, Atlantic, under NATO,

and is responsible for operations in support of EUCOM on a unilateral U.S. basis, if required. CINCLANT also has a strategic offensive mission resulting from the assignment of Fleet Ballistic Missile submarines to his Command.

EUCOM and PACOM are primarily oriented to contingencies in their respective geographic areas, although each has Fleet Ballistic Missile submarines and a resulting strategic retaliatory role. The Commander-in-Chief, EUCOM, is also Supreme Allied Commander, Europe, under NATO and is responsible for planning for the defense of Europe with U.S. forces integrated with other NATO forces or for unilateral U.S. operations, as required. CINCPAC is engaged heavily in military assistance and advisory activities.

SOUTHCOM is primarily responsible for the defense of the Panama Canal, military assistance activities in Latin America and planning for contingency operations which might be required in Latin America.

STRICOM was established to provide a capability for the rapid deployment of combat forces to overseas areas as required. In addition, STRICOM is assigned responsibility for the Middle East/Southern Asia and Africa South of the Sahara.

Within the major Unified Commands, there are sometimes created "Sub-Unified Commands." A number of such "Sub-Unified Commands" now exist, such as the Military Assistance Command, Vietnam (MACV), the Military Assistance Command, Thailand (MACTHAI) and the U.S. Forces (Korea) Command, all of which fall under the Commander-in-Chief, Pacific (CINCPAC), the major Unified Command.

The responsibilities for forces assigned to the Unified and Specified Commands are divided between the Commanders and the Military Departments. The Commanders exercise "full operational command" which includes the responsibility to specify the composition of subordinate forces, assign tasks to these forces, designate objectives and exercise full authoritative direction necessary for accomplishment of their assigned missions. The Military Departments provide the operational forces to the Unified and Specified Commands and have the responsibility to select, train, equip, supply, administer (e.g., handle assignments, rotation and promotions), and discipline such forces.

Each Unified Commander has a joint staff, comprised of officers from all Military Services which have forces assigned to the Command. The staff of the Unified Commander is the only element within the command over which the Unified Commander has total command authority - including disciplinary authority and administrative and logistics responsibility. The Unified Commander has no direct responsibility for such functions as supplying, administering and disciplining the combatant and direct support forces assigned to his command, but only exercises "operational command," or as it is more descriptively used, "operational control" over these forces. The Unified Commander reports through the Joint Chiefs of Staff to the Secretary of Defense, and receives his directions through the same channel.

For each Military Service which has forces assigned to the Unified Command, there is a component command, to which the forces provided by a Military Department to the Unified Command are actually assigned. The Unified Commander exercises "operational command" through the component commanders. On matters other than "operational command," such as supply, equipping, maintenance, administration and discipline, the component commander receives supervisory direction from and reports to the Military

Department to which he and his assigned forces belong. With respect to these latter functions, the component commander's chain of authority runs up to the Chief of his Service and to the Secretary of his Military Department and does not run through the Unified Commander.

This deficiency was pointed out clearly by President Eisenhower in his message to the Congress on the Defense Reorganization Act of 1958. He stated: "Because I have often seen the evils of diluted command, I emphasize that each Unified Commander must have unquestioned authority over all units of his command. . . . Today a unified command is made up of component commands from each military department, each under a commander of that department. The commander's authority over these component commands is short of the full command required for maximum efficiency."

What President Eisenhower referred to as "Diluted Command" was at that time defined officially as "Operational Control." In response to Presidents Eisenhower's message, the Defense Reorganization Act of 1958 vested in the Unified Commander "full operational command," clearly indicating a Congressional intent to overcome the deficiencies of authority for the Unified Commander cited by President Eisenhower. In Unified Action Armed Forces (JCS Pub. 2) which sets forth principles, doctrines and functions governing the activities and performance of Forces assigned to Unified Commands, the JCS now define "Operational Command" as being synonymous with "Operational Control".

Despite the establishment of the unified command concept in the Defense Reorganization Act of 1958, as requested by President Eisenhower, the relationship and relative authority between the Unified Commander and the component commander, and between the component commander and his Military Department, remain substantially unchanged.

The net result is an organizational structure in which "unification" of either command or of the forces is more cosmetic than substantive. The resultant organizational structure is also layered with large headquarters and headquarters' staffs.

In the case of a Sub-Unified Command, such as MACV, the "operational command" runs from CINCPAC directly to MACV, not through CINCPAC's component commanders, (U.S. Army Forces, Pacific (USARPAC), U.S. Air Forces, Pacific (PACAF) and the Pacific Fleet (PACFLT)), as it does to most other forces in the Pacific. The "supervisory" direction for such matters as supply, maintenance, administration and discipline, however, passes down a line from the Military Departments to the appropriate major component command (USARPAC, PACAF or PACFLT) and to the corresponding component command of the Sub-Unified Command, (e.g. U.S. Army, Vietnam; Navy Forces, Vietnam; or the 7th U.S. Air Force).

One of the most significant factors relating to the internal organization of the Unified Command is the fact that only at the single-Service component command level of either the major or Sub-Unified Command is the total command authority which can be vested in a military commander brought together by merging the "supervision" originating in the Military Department and the "operational command" flowing from the Secretary of Defense through the Joint Chiefs of Staff and the Unified Command.

It is of more than passing interest to note that General Creighton Abrams, and before him General William Westmoreland, as the Sub-Unified Commander in Vietnam,

(COMUSMACV) chose to be his own Army component commander.

In a further attempt to overcome the deficiencies in this organizational structure, COMUSMACV has designated one component command as Executive Agent for logistics responsibilities relating to common use items for forces from all military services within each corps area in Vietnam. (The Army component is Executive Agent for II, III and IV Corps areas, and the Navy for I Corps area).

The capability and effectiveness of the combatant forces would be improved by organizing them into a structure with commands that are mission oriented and with operational command lines that are direct, clear and unambiguous. The structure should: (1) assure that all combatant forces are truly unified as necessary to perform the command mission; (2) make realistic operational planning possible; (3) consider present international mutual security arrangements; and (4) reduce the number of staffs and staff sizes to the minimum consistent with actual needs.

The combatant commands which have a functional mission, CONAD and SAC, are dedicated to deterring, and if deterrence fails, to fighting a general war. The six commands which are oriented to geographic areas are equipped primarily for limited war. Three of them (LANTCOM, PACOM and EUCOM) are assigned Fleet Ballistic Missile submarines which have a deterrent and general war role.

The forces which provide the prime deterrent against general war must be reserved solely for that mission, because their use and attrition in limited war would reduce an aggressor's incentive for keeping the war limited.

The nature of the weapons, the planning requirements and the concept of operations for forces dedicated to deterrence and general war are radically different from those for limited war. The weapons systems for general war are designed to defend the United States and to have the capacity to inflict the maximum destruction on the enemy in a short time span. All general war forces must function together in a highly coordinated manner and in accordance with a carefully prepared plan. Recent advances in technology have increased the capability of the forces assigned to CONAD in a way which requires closer coordination than can reasonably be expected between two separate commands in planning for, and employing CONAD and SAC forces in the same physical space. Joint planning alone cannot insure the adherence to operational concept and the degree of coordination required in implementation when the forces concerned are assigned to five different commands, as our strategic forces are now.

All forces which are dedicated to deterrence and equipped for general war should be under a single commander who can establish doctrine for his forces and assure that they are properly trained and kept in a high state of readiness.

The forces for limited war must be highly mobile; their weapons must be capable of being rapidly moved to trouble spots and employed in a selective manner. It is not possible to plan precisely for limited war. Therefore, contingency plans must be rapidly adjusted to the developing situation. With the forces designed for limited war assigned to six separate commands, it is not possible to achieve the coordinated planning, flexibility in resource allocation and mission assignment, and the training required to assure the capability to react rapidly and effectively to a crisis situation.

The general purpose forces, like the strategic forces, should be placed under a single commander who would be responsible for the contingency planning for the employment of all general purpose forces. He would establish doctrine for his forces and assure that they were properly trained, appropriately deployed, and kept in a high state of readiness. Current mutual security agreements make it necessary to maintain subordinate unified commands in the Pacific and European areas. All other general purpose forces should be placed in a single command in the United States, where they could be rapidly deployed in a crisis situation.

At times, it may be necessary to maintain or establish a special subordinate unified command for the execution of specific missions in a geographically localized area, as for example, in Southeast Asia at the present time. The Commander of such a subordinate Unified Command should normally report directly to the overall Commander of general purpose forces.

There is substantial room for improvement and greater integration of management throughout the supply, maintenance and transportation systems of the Department. The most critical need for improved effectiveness is in the support of the Unified Commands.

The logistics system of the Department of Defense, in activities other than procurement and the initial warehousing phase, is decentralized and fragmented in functional assignment. Efforts of the Congress and the Office of the Secretary of Defense to improve efficiency and effectiveness of these activities through standardization of procedures and approaches have achieved very limited results. As a consequence, the current inventory management, distribution, maintenance and transportation systems are needlessly inefficient and wasteful, and even more important, fall far short of the potential for effectiveness of support of combatant commanders.

Integration of supply, maintenance and transportation functions for the support of Unified Commands can substantially improve the effectiveness of logistics support, while at the same time achieving greater efficiency and economy. In addition, this integration will greatly enhance the capabilities for logistics planning for contingencies, which currently is very weak due to fragmentations of logistics functions and responsibilities. A unified, vertically oriented supply and transportation system, including maintenance, should be organized for support of all combat forces, both those overseas and those held in the United States ready for overseas deployment.*

The organizational structure of the major Unified Commands contributes significantly to deficiencies in two procedural areas.

The channel for submission of requirements which can lead to materiel developments (variously called Operations Capability Objectives by the Army, General Operational Requirements by the Navy, and Required Operational Capabilities by the Air Force), to the extent they originate at all with operating commands, bypasses the Unified Commander and the "Operational Command" chain. To the extent there is one, the requirements flow is from the major component commander to the Military Service. As a consequence, the senior elements of the "operational command" chain - now the Secretary of Defense, the Joint Chiefs of Staff and the Unified Commander - who have the total mission awareness, have no

*Logistics problems are covered more fully in Chapter II.

opportunity for review and coordination of the requirements submissions, until after the requirements submissions have been processed and validated by the Military Services, if at all.

Secondly, there is no effective means for the Unified Commanders to participate in the programming and budgeting process. Presumably, the Unified Commander would be the most knowledgeable source of advice on the force structures, strengths, and equipments necessary to perform the mission assigned to his command for execution. The component commanders participate to an extent in some review processes of the Service budget submissions prepared by the Military Departments. Also, the Joint Chiefs of Staff solicit the views of the Unified Commanders on their requirements prior to the beginning of the Joint Chiefs' annual planning process which culminates in the Joint Strategic Objectives Plan. Neither of these processes, however, provides the senior joint commanders of combatant forces - the Unified Commanders - with any effective mechanism for influencing the programming and budgeting process, nor for materially affecting the planning process except in the area of contingency plans.

The existing command structure provides little flexibility and a considerable potential for confusion in crisis situations. For example, misunderstandings concerning forces to be used and to whom they are assigned; command relationships which are ambiguous, and which require extensive coordination between parallel commanders; confusion over the lines dividing areas of responsibility and jurisdictions; and the increased potential for mishaps created by the assignment of one command to execute the plans prepared by another. The inevitable delays occasioned by the layering of commands literally invite National Command Authorities to bypass some elements of the command chain.

The present combatant command structure does not facilitate the solution of many serious problems which materially affect the security of the nation: there is inadequate coordination between the strategic defensive and strategic offensive forces which must operate in the same physical space; the strategic offensive mission is split between four commands, SAC, EUCOM, LANTCOM and PACOM; the six area commands do not individually have a proper purview to permit realistic contingency planning.

The present structure of eight Unified and Specified Commands and a large number of subordinate Unified Commands has proved cumbersome, imposes too broad a span of control for a single decision point in time of peace, is excessively layered, unwieldy and unworkable in crises, and too fragmented to provide the best potential for coordinated response to a general war situation. Without exception, every crisis within the last decade that has involved the movement of forces has required both an ad hoc organizational rearrangement and ad hoc planning.*

VIII. RECOMMENDATIONS

Based on the preceding discussion of organizational considerations and problems, and on

*Vietnam, Cuba Missile Crisis (1962), Panama Riots (1964), Tonkin Gulf Crisis (1964), Congo Rescue Mission (1964), Dominican Republic Crisis (1965), Arab-Israeli War (1967).

the findings presented in the remaining Chapters of this Report, the Panel offers the following recommendations with respect to the Defense Department's organizational structure.

I-1 The functions of the Department of Defense should be divided into three major groupings:

- (a) Military Operations, including operational command, intelligence, and communications (herein called Operations);*
 - (b) Management of personnel and materiel resources (herein called Management of Resources); and*
 - (c) Evaluation type functions, including financial controls, testing of weapons, analysis of costs and effectiveness of force structures, etc, (herein called Evaluation).*
- *****

I-2 Each of these major groups should report to the Secretary of Defense through a separate Deputy Secretary. Appointees to these three positions should be drawn from civilian life, and should rank above all other officers of the Department of Defense except the Secretary. One of the three should be designated principal deputy. The General Counsel, the Assistant to the Secretary of Defense (Atomic Energy), the Assistant Secretary of Defense (Public Affairs), and the Assistant to the Secretary of Defense (Legislative Affairs) would continue to report directly to the Secretary of Defense. The staff of the Office of the Secretary of Defense should not exceed 2,000 people.*

I-3 The Deputy Secretary of Defense for Management of Resources should be delegated responsibility for the following functions:

- (a) The Military Departments, which should continue under the immediate supervision of their Secretaries;*
- (b) Research and Advanced Technology;*
- (c) Engineering Development;*
- (d) Installations and Procurement (a modification of the present Installations and*

*This would not lower the reporting level of any officer in the Department, since all officers now report to the Deputy Secretary or to a lower level. The only change would be to divide the functions of the present Deputy Secretary to permit a sharper functional focus. No new organizational layer would result.

Logistics);

- (e) Manpower and Reserve Affairs;
- (f) Health and Environmental Affairs;
- (g) Defense Supply Agency; and
- (h) Advanced Research Projects Agency.

There should be an Assistant Secretary of Defense for each of the functions (b) through (f) inclusive, who reports and provides staff assistance to the Secretary of Defense through the Deputy Secretary of Defense (Management of Resources). The position of Director, Defense Research and Engineering should be abolished, and his functions reallocated between the Assistant Secretary of Defense for Research and Advanced Technology and the Assistant Secretary of Defense for Engineering Development.

Functions (g) and (h) should continue to be constituted as Defense Agencies, each under the immediate supervision of a Director.

The Advanced Research Projects Agency should be delegated the responsibility for all research and exploratory development budget categories. Funds for such research should be budgeted directly to this Agency, and the Agency should be authorized to assign or contract for work projects to laboratories of the Defense Department or in the private sector, as appropriate.

I-4 The Deputy Secretary of Defense for Operations should be delegated responsibility for the following functions:

- (a) Military Operations;
- (b) The Unified Commands;
- (c) Operational Requirements;
- (d) Intelligence;
- (e) Telecommunications (and Automatic Data Processing);
- (f) International Security Affairs;
- (g) Defense Communications Agency; and
- (h) Civil Defense Agency (if Civil Defense is to be retained in the Department of Defense).

Three new major Unified Commands should be created: (1) A Strategic Command, composed of the existing Strategic Air Command, the Joint Strategic Target Planning Staff,

the Continental Air Defense Command, and Fleet Ballistic Missile Operations; (2) A Tactical (or General Purpose) Command, composed of all combatant general purpose forces of the United States assigned to organized combatant units; and (3) A Logistics Command, to exercise for all combatant forces supervision of support activities, including supply distribution, maintenance, traffic management and transportation. No Commander of a Unified Command should be permitted to serve concurrently as Chief of his Military Service.

The responsibilities now delegated to the Joint Chiefs of Staff by the Secretary of Defense to serve as military staff in the chain of operational command with respect to the Unified Commands, and all other responsibilities so delegated which are related to military operations and the Unified Commands, should be assigned to a single senior military officer, who should also supervise the separate staff which provides staff support on military operations and the channel of communications from the President and Secretary of Defense to the Unified Commands. This officer should report to the Secretary of Defense through the Deputy Secretary of Defense (Operations). This senior military officer could be either the Chairman of the Joint Chiefs of Staff, as an individual, not ex-officio, the Commander of the Tactical Command, or some other senior military officer, as determined by the President and the Secretary of Defense.

There should be an Assistant Secretary of Defense for each of the functions (c) through (f), inclusive, who reports and provides staff assistance to the Secretary of Defense through the Deputy Secretary of Defense (Operations). The Defense Communications Agency and the Civil Defense Agency would each be under the immediate supervision of a Director.

All intelligence functions of the Department of Defense and all communications functions should report to the Secretary of Defense through the Deputy Secretary of Defense for Operations.

I-5 *The following steps should also be taken:*

(a) To provide the staff support on military operations, and the channel of communications from the President and the Secretary of Defense to the Unified Commands, an operations staff, separate from all other military staffs, should be created.

(b) The responsibilities now delegated to the Joint Chiefs of Staff by the Secretary of Defense to serve as military staff in the chain of operational command with respect to the Unified Commands, and all other responsibilities so delegated which are related to military operations and the Unified Commands, should be rescinded; and consideration should be given to changing the title of the Chief of Naval Operations to Chief of Staff of the Navy.

(c) All staff personnel positions in the Organization of the Joint Chiefs of Staff and in the headquarters military staffs of the Military Services which are in support of activities, such as military operations, which are recommended for transfer to other organizational elements, should be eliminated.

(d) The Organization of the Joint Chiefs of Staff should be limited to include only the Joint Chiefs of Staff and a reconstituted Joint Staff limited in size to not more than 250

officers augmented by professional civilian analysts as required.

(e) The Unified Commanders should be given unfragmented command authority for their Commands, and the Commanders of component commands should be redesignated Deputies to the commander of the appropriate Unified Command, in order to make it unmistakably clear that the combatant forces are in the chain of command which runs exclusively through the Unified Commander;

(f) In consolidating the existing area Unified Commands into the Tactical Command, major organizational and functional advantages will be obtained by:

(1) Merging the Atlantic Command and the Strike Command;

(2) Abolishing the Southern Command and reassigning its functions to the merged Atlantic and Strike Commands;

(3) Abolishing the Alaskan Command and reassigning its general purpose function to the Pacific Command and its strategic defense functions to the Strategic Command; and

(4) Restructuring the command channels of the sub-unified commands.*

(g) The responsibilities related to civil disturbances currently delegated to the Army should be redelegated to the Tactical Command; and

(h) The Unified Commanders should be given express responsibility and capability for making recommendations to the Deputy Secretary of Defense for Operations, for operational capabilities objectives and for allocations of force structures needed for the effective accomplishment of the missions assigned to their Commands.

I-6 The Deputy Secretary of Defense for Evaluation should be delegated the responsibility for the evaluation and control-type activities, including:

(a) Comptroller (including internal audit and inspection services);

(b) Program and Force Analysis (a modification of the present Systems Analysis Unit);

(c) Test and Evaluation;

(d) Defense Contract Audit Agency; and

*The total recommendations for changes in the Unified Command structure would result in a net reduction in the number of Combatant Command Headquarters and should result in a substantial reduction in the total number of personnel required to staff the structure.

(e) Defense Test Agency.

There should be an Assistant Secretary of Defense for each of the functions (a) through (c) inclusive, who reports and provides staff assistance to the Secretary of the Defense through the Deputy Secretary of Defense for Evaluation.

The Defense Contract Audit Agency should be continued as a Defense Agency, under the immediate supervision of a Director.

A Defense Test Agency should be created to perform the functions of overview of all Defense test and evaluation, designing or reviewing of designs for test, monitoring and evaluation of the entire Defense test program, and conducting tests and evaluations as required, with particular emphasis on operational testing, and on systems and equipments which span Service lines. The Defense Test Agency should be under the supervision of a civilian Director, reporting to the Secretary of Defense through the Deputy Secretary of Defense for Evaluation.

I-7 The number of Assistant Secretaries in each of the Military Departments should be set at three, and except for the Assistant Secretaries (Financial Management), they should serve as senior members of a personal staff to the Secretaries of the Military Departments without the existing limitations of purview imposed by formal functional assignments. The Assistant Secretary (Financial Management) should become the Comptroller of the Military Department, with a military deputy, as in the current organization in the Department of the Navy.

The Secretariats and Service Military Staffs should be integrated to the extent necessary to eliminate duplication; the functions related to military operations and intelligence should be eliminated; line type functions, e.g., personnel operations, should be transferred to command organizations; and the remaining elements should be reduced by at least thirty percent. (A study of the present staffs indicates that the Secretariats and Service staffs combined should total no more than 2,000 people for each Department).

I-8 Class II activities (Army), Field Extensions (Air Force), and Commands and Bureaus (Navy), all of which are line, rather than staff in character, which are now organizationally located under the direct supervision of staff elements in the headquarters military staffs of the Services, should be transferred to existing command-type organizations within the Services.

I-9 The Defense Atomic Support Agency should be disestablished. Its functions for nuclear weapons management should be transferred to the operations staff under the Deputy Secretary of Defense for Operations, and its weapons effects test design function should be transferred to the Defense Test Agency.

I-10 The administration functions presently assigned to the Assistant Secretary of Defense (Administration) should be assigned to a Director of Pentagon Services, reporting to the immediate office of the Secretary of Defense. He should be responsible for operating the facilities and providing administrative support for the Washington Headquarters.

I-11 A separate program category* should be established for public affairs activities in the Department of Defense.

I-12 A Net Assessment Group should be created for the purpose of conducting and reporting net assessments of United States and foreign military capabilities and potentials. This group should consist of individuals from appropriate units in the Department of Defense, consultants and contract personnel appointed from time to time by the Secretary of Defense, and should report directly to him.

I-13 A Long-Range Planning Group should be created for the purpose of providing staff support to the Secretary of Defense with responsibility for long-range planning which integrates net assessments, technological projections, fiscal planning, etc. This group should consist of individuals from appropriate units in the Department of Defense, consultants and contract personnel appointed from time to time by the Secretary of Defense, and should report directly to him.

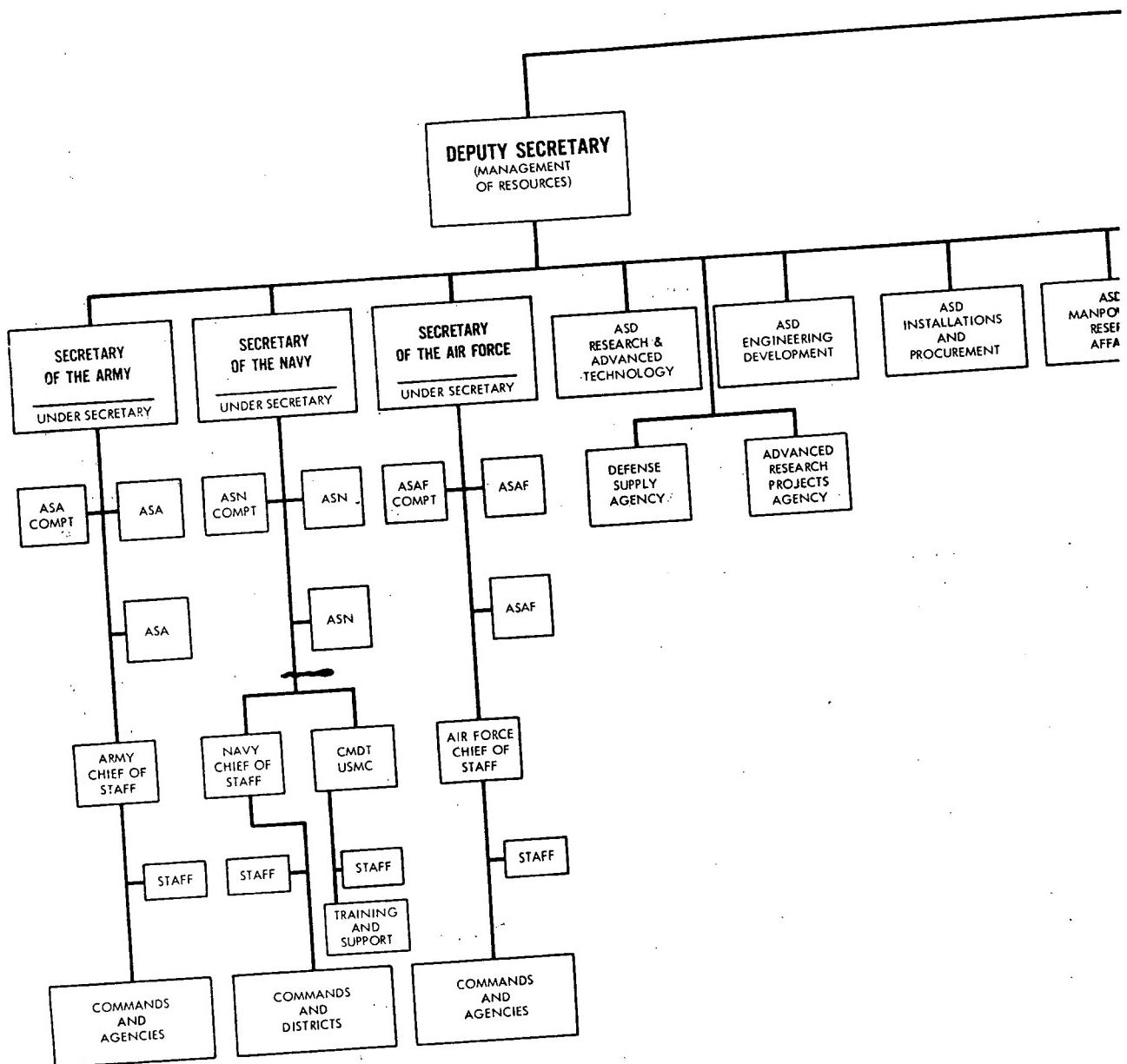
I-14 A coordinating Group should be established in the immediate office of the Secretary of Defense. The responsibilities of this Group should be to assist the Secretary of Defense and the Deputy Secretaries of Defense in coordinating the activities of the entire Department in the scheduling and follow-up of the various inter-Departmental liaison activities; to staff for the Secretary the control function for improvement and reduction of management information/control systems needed within the Department and required from Defense contractors; and to assure that each organizational charter of the Office of the Secretary of Defense is properly scoped and coordinated and in accordance with the assigned responsibility of the organization. The responsibility for the Department's Directive/Guidance System, currently assigned to the Assistant Secretary of Defense (Administration), should be assigned to this group. The coordinating group should be

*Program categories are those categories of activities used for internal planning and management in the Department, e.g., strategic offensive forces, strategic defensive forces, research and development, intelligence, etc.

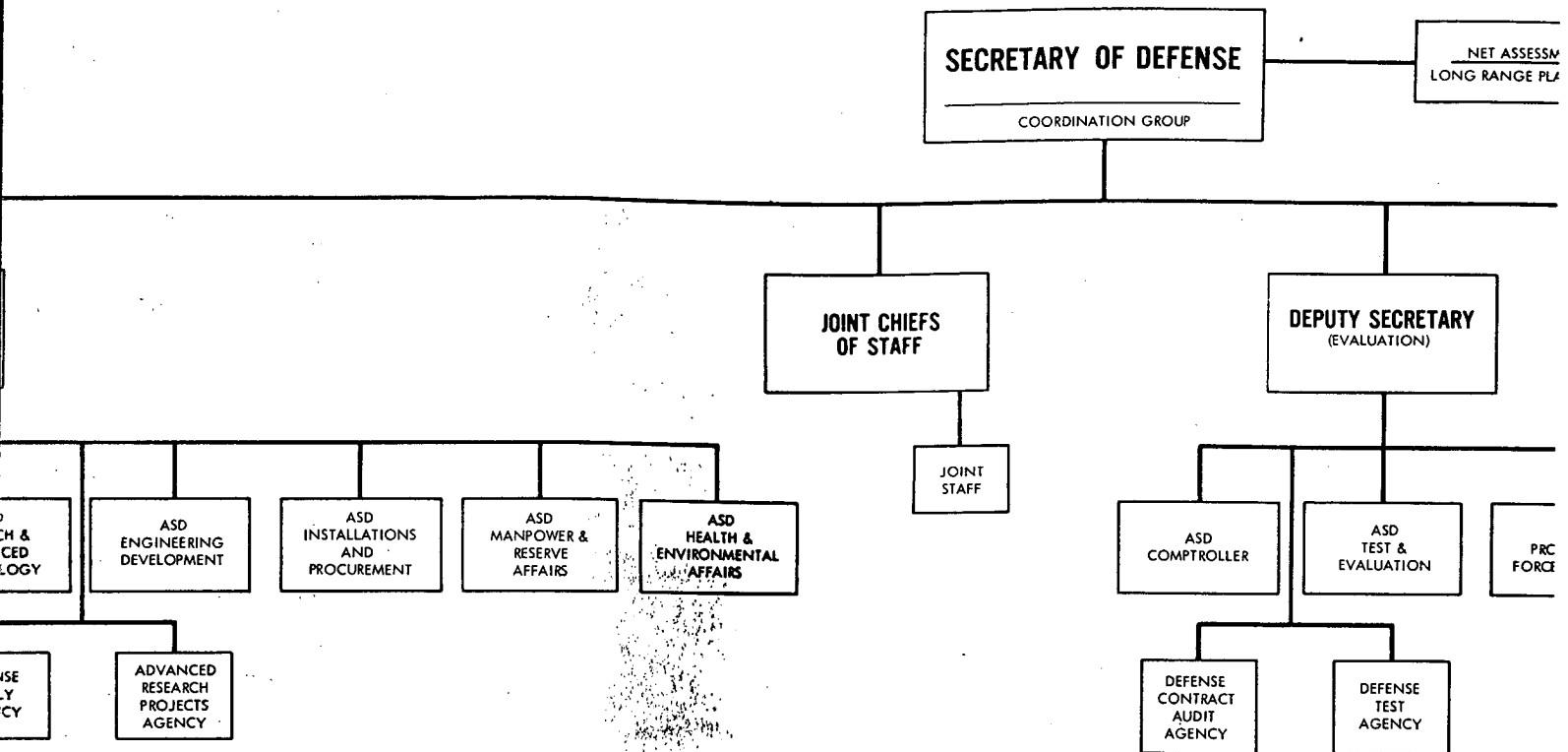
headed by a civilian Director, who should also serve as executive assistant to the Secretary of Defense.

I-15 The Army Topographic Command, the Naval Oceanographic Office and the Aeronautical Chart and Information Center should be combined into a unified Defense Map Service reporting to the Secretary of Defense through the Deputy Secretary of Defense for Management of Resources.

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DEPARTMENT OF DEFENSE



PROPOSED BY THE
BLUE RIBBON DEFENSE PANEL
1 JULY 1970

NET ASSESSMENT GROUP
LONG RANGE PLANNING GROUP

SECRETARY
(N)

ASD
PROGRAM &
FORCE ANALYSIS

ASD
INTELLIGENCE

ASD
OPERATIONAL
REQUIREMENTS

OPNL
AGENCIES
FOR
INTELL.

DEPUTY SECRETARY
(OPERATIONS)

OPNS
STAFF
*

OPNS
STAFF
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ASD
INTERNATIONAL
SECURITY
AFFAIRS

ASD
TELECOMMUNI-
CATIONS

DEFENSE
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CATIONS
AGENCY

ASD
PUBLIC
AFFAIRS

GENERAL
COUNSEL

ATSD
LEGISLATIVE
AFFAIRS

ATSD
ATOMIC
ENERGY

PENTAGON
SERVICES

STRATEGIC
COMMAND

TACTICAL
COMMAND

LOGISTICS
COMMAND

SAC

EUCOM

THEATER
LOGISTIC
COMMANDS

CONAD

PACOM

FLEET
BALLISTIC
MISSILE
OPERATIONS

MERGED
LANT, SOUTH
& STRI COM'S

* OPTIONAL

CHAPTER II

MANAGEMENT OF MATERIEL RESOURCES

I. GENERAL

The modern history of military organizations and operations demonstrates that the materiel support of the forces is of ever-increasing relative importance, and presents complex defense management problems.

Advances in science and technology comprise the initiating source of this trend. Weapons, communications, transportation - all have been affected significantly by revolutionary advances in the state-of-the-art; and each advance has been accompanied by great increases in complexity of development, acquisition, maintenance, operation and in cost.

In short, modern military organizations have become "hardware" oriented and dependent. Military hardware requires an increasing amount and proportion of total defense resources, aggravating a host of inseparable, associated management problems.

Materiel management in the Department of Defense can be divided into two distinct overall areas of activity. The first is acquisition related, and includes functions associated with research, development, test and evaluation, and procurement. The second phase is post-procurement, and includes supply, maintenance, and transportation.

Although those activities connected with acquisition are more often in the focus of public and Congressional attention, both areas are critical to combat effectiveness and both have a significant cost impact.

The growing size of hardware-related expenditures, particularly for acquisition, has been matched by broadening Congressional attention. For instance, the coverage of authorizing legislation, which basically deals with investment items, has been expanded so that it now extends to all research, development, test and evaluation and to all procurements except ammunition, electronics, and general materiel.

Congressional concern with the post-acquisition phase of materiel management is demonstrated by the breadth of consolidation authority for logistics functions vested by Congress in the Secretary of Defense by the 1958 Amendment to the National Security Act.

The most severe problems in the acquisition of materiel occur when production is dependent on new development, not with off-the-shelf procurements.

Military hardware development programs continue to be plagued by the now familiar symptoms of trouble:

- (1) Major cost growths or overruns;
- (2) Schedule slippages; and
- (3) Failures in performance.

Uncertainty is inherent in the nature of programs which involve advances in technology, and this uncertainty makes it inevitable that some degree of cost growth, delays and short-falls in desired performance will occur in some programs. The frequency and magnitude of such problems which have been experienced, however, surpass significantly those which can be attributable to unavoidable causes. It is clear that a substantial portion of the acquisition problems must be attributed to management deficiencies.

The problems - and resulting deficiencies - in hardware development programs are clearly too myriad and complex to yield to any single solution, but a combination of changes in policy and procedures can achieve significant improvements in costs, time, and performance. Deficiencies in any part of the process - establishment of the technological base, formulation of requirements, acquisition philosophy, cost estimating, testing, contracting, program management, etc. - can adversely affect an entire program. If repetitions of the weapon systems debacles of the past are to be avoided in the future, each element of the policies and procedures followed in the past must be carefully examined and constructively revised. Equally crucial is the necessity for strong, continuing management to assure that the execution of the revised policies and procedures is responsive.

Even an effective change in policies and procedures cannot be expected to produce immediate benefits, however, for the most meaningful potential improvements in the acquisition process fall in the initial stages of development programs. The duration of development programs is measured in years, and an improvement in the process will produce the most meaningful results in programs initiated after the changes are instituted.

II. RESEARCH AND DEVELOPMENT

Research and Development (R&D) by the Department of Defense may be broken down according to activity (budget category subdivisions) and by performer or by mission (Five Year Defense Program, program elements).

The types of activity, or budget category subdivisions, are as follows:

Within Budget Category VI, Research and Development:

- 6.1 Research: includes all basic research and that applied research directed toward expanding knowledge in the several scientific areas;
- 6.2 Exploratory Development: includes studies, investigations and minor development efforts, varying from applied research to sophisticated breadboard hardware and is oriented to specific military problem areas;
- 6.3 Advanced Development: includes all projects for development of hardware for experimental test;
- 6.4 Engineering Development: includes development programs in which items are engineered for military use, but which have not been approved for procurement or operation;
- 6.5 Management and Support: includes the overhead expense for the other subdivisions of research and development;

6.6 Emergency Fund: available for use in any category at the discretion of Secretary of Defense; and

From other than Budget Category VI:

Operational Systems Development: includes development, engineering and test of systems, support systems, vehicles and weapons (Engineering Development) that have been approved for production and deployment.

The breakdown of research and development by performer includes (1) Private Industry, (2) Government In-House, (3) Federal Contract Research Centers (FCRCs), (4) Universities, and (5) Foreign Performers. Since the second type of performer, (Government In-House), does not usually include Civil Service salaries in the allocation of funds reported, percentages of effort by category are at best, rough estimates. However, taking such salaries into consideration, it is estimated that R&D funds are distributed among performers as follows: Industry, about 62%; Government In-House, about 30%; FCRCs, about 3.5%; Universities, about 3%; and the Foreign Performers, about one-tenth of one percent. The emergency fund, for which performers vary from year to year according to allocation, accounts for one percent or less of the total R&D funds.

Mission breakdowns are by program categories. These include Strategic Programs, General Purpose Programs, Other Programs (Communications, Intelligence, etc.), Technological Base and Support. These subdivisions are quite imprecise, and only moderately useful for analysis purposes.

A. Technological Base

One of the most critical distinctions to be made is that between research and development to advance the general technological base related to military needs and the remainder of research and development which is oriented to specific military applications. There is an elusive boundary between the two. Generally, R&D to advance the technological base is acknowledged to fall in the budget categories of Research (6.1) and Exploratory Development (6.2), and to a small extent, in Advanced Development (6.3). It should be noted that the Exploratory Development category is not altogether limited to advancing the technological base. (The budget categories of Research (6.1) and Exploratory Development (6.2) are controlled by level funding, e.g., funds are appropriated to support a level of activity rather than being justified on an individual project basis as are the other R&D categories).

There are several significant characteristics of R&D designed to advance the technological base. First, formal requirements from the military operators are not necessary for, nor do they directly affect, the allocation of funds in these two categories.

Second, a much more careful analysis of level-funded categories, in which R&D to advance the technological base primarily falls, is required to assure relevancy to military needs than is required in categories which are controlled on a project basis.

Third, where control is organizationally dispersed, it is much more difficult to detect duplication than where specific requirements must be justified, and identifiable projects planned and approved as a basis for funding.

Fourth, R&D designed to advance the technological base requires more intensive review in order to insure that the proper allocation of funds is made so that all parts of the militarily-relevant spectrum of technology are adequately covered.

Fifth, the dispersion of control of such R&D makes it difficult to perform audits adequately to insure that such funds are actually used to advance the technological base, and not used to supplement efforts to develop specific hardware.

Under existing procedures, research and development for advancing the technological base is dispersed among the Military Services and the Defense Agencies, including the Advanced Research Projects Agency (ARPA).

ARPA now administers research and development which accounts for approximately 12% of the Research (6.1) category and approximately 20% of Exploratory Development (6.2). Not all of ARPA's effort is clearly applied to advancing the technological base. Its advanced sensors project, for example, is more nearly in the Operational Systems Development category. This project still consumes more than one-seventh of ARPA's Exploratory Development dollars.

The actual Research and Exploratory Development administered by ARPA, as is that administered by the Military Services, is mostly performed under contract by industry or under work order by in-house Service laboratories. ARPA's objective is to carry projects to a certain level in Research and Exploratory Development, and then to transfer them to the appropriate Military Service.

Each of the Military Services has a research office: the Army Research Office (ARO), the Office of Naval Research (ONR), and the Office of Aerospace Research (OAR). Each Service also has a number of basic research laboratories.

The Defense research performed by universities is small and diminishing. Renewed efforts are being made to insure that such research is clearly defense-related. Unquestionably, university participation in Defense research is critical to the maintenance of an adequate pace of advance in the military-related technological base. At the present time, only about 14% of Government funds supporting university research is from Defense. Participation by institutions and individuals in university research for Defense is on a purely voluntary basis, and should remain so. The university defense-oriented research contribution is being damaged by anti-military and "protecting academic freedom" attitudes and activities of some students and faculties. The consequences of permitting academic freedom to be so interpreted as to inhibit or prohibit voluntary participation in military-oriented research by universities and faculty members will not only be a distortion of academic freedom, but will be a critical blow to the nation's defense research requirements.

A substantial portion of exploratory development by the Army is performed in-house in arsenal-type laboratories, a somewhat lesser portion by the Navy in-house, and an even smaller portion by the Air Force in-house.*

The technological base is also advanced by independent research and development

*See Section on Defense Laboratories in this Chapter.

(IR&D) performed on its own initiative by industry, which generally seeks to recover such costs as overhead on contracts with the Government. The potential benefits from IR&D are inhibited by two factors. First, recent attempts in Congress to limit recognition of IR&D costs as recoverable overhead in Government contracts have inhibited industry investment in IR&D. Second, some of the Department's in-house laboratories display a not-invented-here attitude that inhibits objective consideration of IR&D products as alternatives to laboratory-originated technological approaches.

The R&D intended to advance the technological base is estimated to be about seven and one-half to eight percent of the total Defense R&D effort. The increasingly high technological risks, associated with major weapons systems developments is symptomatic, in part, of an inadequate pace of advance in the military-related technological base.

There is no adequate or coherent planning for investments in advancing the technological base. Responsibility and management for conducting such research are widely fragmented among and within the Military Services and the Defense Agencies. Research funds so allocated have not always been spent on militarily-relevant technology, nor are all militarily-relevant areas of technology appropriately considered in the allocation of research funds.

Existing organization and procedures inhibit the degree of control on research and exploratory development work and of the expenditures necessary to insure proper application. The funds allocated to advancing the technological base are not sufficiently identifiable and auditable to support value judgments as to their sufficiency. There is no adequate mechanism to assure that funds appropriated for research and exploratory development are not diverted to advanced, or engineering development categories, or to operational systems developments. The overemphasis on mission justification for research and development allocations and funding creates additional incentives for such diversions.

There is no adequate mechanism to evaluate the performance of the numerous research groups. The dissipation of research, exploratory development and management and support categories of R&D funds on unproductive work in contractor and in-house laboratories, sometimes to support a preconception or position of the organizational element contracting for the research, occurs all too often.

Based on the foregoing observations, it is concluded that R&D to advance the technological base should be constituted as a separate program and subject to a continuing intensive review to insure that all funds are allocated to militarily-relevant research and that all militarily-relevant areas of technology are given due consideration in fund allocations. Further, Defense research policy should be separated by assignment of responsibility from other development policy. The primary objective should be to insure that technology will be available when needed to meet Defense requirements.

II-1 Research and Development to advance the technological base should be constituted as a separate program, under the staff supervision of the Assistant Secretary of Defense (Research and Advanced Technology). It should be subject to continuing intensive review to insure that available funds are allocated to militarily-relevant research and that all militarily-relevant areas of technology are considered in fund allocations.

II-2 The responsibility for control of Defense research designated to advance the technological base and the appropriated funds therefor should be assigned to the Advanced Research Projects Agency (ARPA). Further, ARPA should be directed to:

(a) Allocate its R&D among qualified performers;

(b) Assure by review the relevance of all projects and appropriateness of fund allocations;

(c) Evaluate the effectiveness of all its R&D participants; and

(d) Develop and submit for approval to the Deputy Secretary of Defense (Management of Resources) an annual Research Objective (RO) statement which would be a companion document to the Operational Capability Objectives developed by the Unified Commands and which would provide the Secretary of Defense an information base to determine the overall defense capability objectives.

B. Advanced, Engineering, and Operational Systems Development

That portion of military research and development which goes beyond advancing the general technological base involves the development of hardware either for experimental test or for production and deployment. The allocation of resources to this portion of R&D is, at least theoretically, based on military operational requirements.

1. Requirements

A requirement, in this context, refers to a need for a materiel capability which does not presently exist or to replace one which is inadequate in performance for the conduct of a military mission currently assigned or anticipated in the future. The several Military Services designate this requirement by different nomenclature, which varies within a Service according to the stage of refinement of the requirement. Traditionally, requirements flow from the operational and materiel commands into the Service staffs.

In the Army, the Combat Development Objectives Guide (CDOG), prepared by the Army Staff, provides that all Operational Capability Objectives (OCOs), Qualitative Materiel Development Objectives (QMDOs) and Qualitative Materiel Requirements (QMRs) are to originate in the Combat Developments Command (CDC), which is designated to represent the Army in the field.

The Navy's General Operational Requirements (GORs) flow primarily from their Mid-Range Objectives (MROs), a 10-year planning projection prepared by the staff for the Chief of Naval Operations.

The early Air Force requirement takes the form of a Required Operational Capability (ROC) which can be prepared in any major command. Upon approval by Air Force Headquarters, the requirement is converted to a Required Action Document (RAD).

A major problem with the requirements process occurs at its very beginning. The originating command often lacks the capability for operational validation which should be prerequisite to transmittal to higher Headquarters. The application of military judgment to requirements is essential, but not sufficient in itself. Operational validation should be based on a thorough analysis of the assigned mission and the present or programmed means for accomplishing it in the predicted threat environment. The Air Force has for many years maintained operations analysis offices in such originating organizations. The extent to which they participate in the validation of operational requirements varies considerably. The Navy has some analysis capability, though much less, at such levels. The Army analysis capability at this point in the requirements process can scarcely be said to exist at all. There is no doubt that the overall requirements process could be improved greatly by specifying that operations analysts study requirements at the point of origin. In this way, those requirements reaching higher headquarters should have greater validity.

The requirements process is highly service unilateral. To the extent requirements originate with combatant units, they are processed not through operational channels, but through unilateral service channels. Unified and Specified Commanders are not in such channels. There is no opportunity for the Office of the Secretary of Defense (OSD) to review total requirements for priority, urgency or duplication before they are screened and filtered by the Services. Many changes can and do occur between the presumed initiator and any validation review by OSD.

Each Service has a large section in its Headquarters staff which has the sole function of translating the broadly-stated requirements received from field commands into more specific statements of their desires for new or improved weapons and other materiel. These staff elements also determine informally the relative priority of the requirements for new and improved weapons. In recent years, there has been a noticeable tendency for the formal requirements documents to become quite specific, and to be stated increasingly more in terms of engineering specifications rather than in terms of the performance or operational results being sought.

Even when the engineering specifications are properly matched to the performance requirements, the detailed engineering specifications limit the engineering alternatives available to the developer because of the reluctance of the acquisition authority to consider change, thereby imposing on the development a rigidity which can cause delays, additional costs, and often the application of older technology than the current state-of-the-art would permit. In other instances, the specifications have the result of demanding products which are clearly beyond the state-of-the art or which require developmental efforts beyond those necessary to perform the prescribed mission. Inept or obsolete specifications also occur too frequently, and in some instances, products developed which satisfy the imposed engineering specifications will not perform the mission intended.

There is an apparent inability of Service staff elements to divorce themselves from their own Service interests in establishing priorities for requirements. It is evident that the needs of the user in the field often take second place to weapons developments considered most important to the particular Service for the protection or expansion of its assigned roles and missions.

The mission of the combatant forces should determine their required operational capabilities, which should be the principal factor in initiating development. This can be accomplished only if the combatant commands possess the capability to analyze their

missions, determine their operational capabilities, deficiencies and potential deficiencies, and state their requirements in a meaningful way.

II-3 The Strategic, Tactical and Logistics Commands should be assigned the responsibility to develop, and submit to the Deputy Secretary for Operations, Operational Capability Objectives relating to their assigned missions. For this purpose, each Command and major sub-command Headquarters should be organized to include an operations analysis element.

II-4 For each Operational Capability Objective which is validated by the Deputy Secretary for Operations, the Deputy Secretary for Management of Resources should require one or more of the Military Departments to prepare and submit a development plan aimed at satisfying the Operational Capability Objective.

2. Advanced Development

Advanced Development, which includes all projects for development of hardware for experimental test, is the essential link between advances in the technological base achieved in Research and Exploratory Development, and the incorporation of improved capabilities in new weapons developments. In recent years, paper studies and analyses have often been substituted for essential hardware development and testing. As a result, uncertainties which could be eliminated or reduced are carried over into engineering development or operational systems development, where unresolved technical problems are significantly more expensive and troublesome to remedy. In addition, new technology which would improve weapons capabilities is often lost in the process.

Increased emphasis on and funding of Advanced Development to yield various forms of prototype equipment, which can be tested prior to commitment in a weapon system, is essential. Prior to approval of initiation of Engineering or Operational System Development, test results of all major advances in the technological base considered for incorporation should be available. *

3. Engineering Development and Operational Systems Development

For purposes of special management control, Engineering Development and Operational Systems Development of major systems (defined as requiring total R&D financing in excess of \$25 million or requiring a total production investment in excess of \$100 million) are subjected to special procedures. At any given time, there are between 70 and 80 such major systems under development. The procedures prescribed for major systems development are optional for minor systems which do not fall within the

*See Test and Evaluation, this Chapter.

established criteria.

a. The Major Weapons System Acquisition Process

The prescribed process for acquisition of major systems is hinged on the requirement for approval by the Secretary of Defense of the initiation of Engineering Developments or Operational Systems Developments which fall within the prescribed criteria.

Concept Formulation is comprised of the activities which precede the decision to go forward with the engineering development. Following the decision, a phase called Contract Definition is prescribed, and that is followed by the actual development. Concept Formulation includes such activities as comprehensive systems studies, and experimental hardware efforts under Exploratory and Advanced Development. Prescribed prerequisites for obtaining a decision to proceed into Engineering Development, which prove to be largely idealistic for application to the totality of a large weapon system and which have not been strictly adhered to in practice, are:

- (1) Primarily engineering rather than experimental effort is required, and the technology needed is sufficiently in hand.
- (2) The mission and performance envelopes are defined.
- (3) The best technical approaches have been selected.
- (4) A thorough trade-off analysis has been made.
- (5) The cost effectiveness of the proposed item has been determined to be favorable in relationship to the cost effectiveness of competing items on a Department-wide basis.
- (6) Cost and schedule estimates are credible and acceptable.

Once a decision to proceed with Engineering Development is obtained, it is mandatory to conduct a Contract Definition, among the objectives of which are:

- (1) Providing a basis for a firm fixed-price or fully structured incentive contract for development.
- (2) Identification of high-risk elements.
- (3) Detailed specifications for all end items.
- (4) Verification of technical approaches.
- (5) Establishment of firm schedules and costs estimates including production engineering, facilities, construction and production hardware to be funded during the development.
- (6) Establishment of schedules and costs estimates for the total project including production, operation and maintenance.

Contract Definition is itself divided into three phases. The first of these is the preparation and issuance of a Request for Proposal (RFP) and the selection of contractors for Contract Definition. The RFP is the document that solicits the first formal response from industry connected with the acquisition of a new weapon system. It calls for sufficient information needed for selection of the contractors who are to undertake the detailed competition. The time and effort spent in this phase vary widely, but a period of four-to-six months is average.

Following the selection of contractors to participate in Contract Definition, the second phase begins with the award of fixed-price type contracts, under which each contractor prepares proposals for the engineering development effort. These proposals are detailed and voluminous, and one copy of a proposal may weigh as much as one ton.

The third and final step in the Contract Definition phase is that of source selection. In current practice, the contractors' proposals for development of complex systems are broken down into a large number of technical and management considerations. Each of these items is then assigned for evaluation to a small number of technical or management experts who in the aggregate comprise an evaluation team which may number several hundred. Prior to the evaluation of each element, weight factors have been assigned but not disclosed to the small groups evaluating the many compartmented factors. These weight factors are predetermined by a small team of experts primarily on the basis of value judgments. After the evaluation is made of each individual element, the scores assigned to each element of the proposal are summed up and the raw data is forwarded to a selection board, usually comprised of general or flag officers. The selection board then applies the predetermined weights and recommends the selection of a contractor based on these weighted scores plus other factors such as price and past performance, which are not given preassigned weights.

Concurrent with the evaluation and selection process, each of the contractors who participates in contract definition and who submits a proposal, is engaged in contract negotiations. The negotiations are conducted by personnel not involved in the evaluation and selection. Prior to the completion of the evaluation process, the negotiators have each of the participating contractors sign a contract. When the selection of the contractor is finally made, the contract previously signed by the selected contractor is executed.

During the contract definition phase, the technical and design approaches to the systems development contained in the proposal of a prospective contractor are often exposed to other prospective contractors, so that potentially better and/or less costly features of each proposal can be considered by other prospective contractors for incorporation in or adaptation to their own proposals. Industry generally considers this practice to constitute unethical conduct on the part of the Government, particularly since it has no counterpart in non-government business transactions. The potential inherent in this practice for its use by government personnel to influence the ultimate selection of a contractor is obvious.

The scope of an RFP and the responses thereto in a major systems development, as prescribed, and as practiced until recently, are illogically broad. The central purpose of the contract is concerned with engineering development, a matter of considerable technical uncertainty. To expect and to require through Contract Definition that a contractor have the capability even to identify all end items of the system, let alone develop detailed specifications for each, in an advanced technological product, and concurrently to prepare

reliable predictions in detail on the maintainability, reliability, and the requirement for operations training to use the product, is unreasonable. Experience proves this procedure impractical, and the many peripheral matters included during Contract Definition tend to obscure the critical issues of technical design and competence, as well as multiplying the cost of preparing and reviewing the proposals.

The mandatory requirement for a formal Contract Definition has a serious impact on the entire development process. While there are cases where the contract definition process is useful, there are others in which there is no logical need for the exercise. Contract Definition is both time consuming and costly. Twelve-to-eighteen months can be devoted to paper preparation and review with little, if any, actual development work going on, and the cost to the Department for a Contract Definition exercise can exceed one hundred million dollars. Such a procedure should be required only on a case-by-case basis, rather than on a mandatory basis presently prescribed in Department of Defense Directive 3200.9.

There are also problems involved in the source selection process. Past experience indicates that both weighted and raw scores on responses to RFPs tend to be very close in major source selections. In some instances, contractors reverse positions in going from raw scores to weighted scores, but even then the competitors tend to be almost equal. In this situation, it appears that, generally, the unweighted factors, such as cost and past performance, have a large and perhaps controlling impact on the final selection. Apparently, the large number of peripheral technical elements included in the ratings is the major factor which normalizes the scores of the competitors. Reduction of the number of elements rated would focus attention on the more fundamental considerations, and would give a broader perspective of the relative technical merits of each contractor's proposal.

It should be noted that although the prescribed major weapon system acquisition process has not been rescinded, it has been modified in practice in recent months, in recognition of some of these problems. The process was oriented to a single controlling decision point. This decision was the approval or disapproval for initiating Engineering or Operational System Development and was documented in the form of a Development Concept Paper (DCP). This emphasis on a single decision point tended to de-emphasize the necessity for continuing review and decision after the system development was approved. The purpose of the Defense System Acquisition Review Council (DSARC), formed in September 1969, was periodically to review major development programs and to make recommendations for decisions not only with respect to initiating development, but also prior to contracting for development and again prior to a production decision. This change has the potential for alleviating the overemphasis on the single decision point.

The systems development approach continues to accumulate in one program a dangerously high magnitude of risks, from both cost and technology standpoints. Development problems connected with one or two of the many critical components of the system can cause schedule slippages which occasion enormous cost consequences. Even in the absence of major technical difficulties, an accumulation of changes in a variety of components, each relatively small in cost, can have a total cost impact of great magnitude.

This emphasis on developing all elements for the system as part of a single development project, as contrasted to selected subsystem and component development, also has the effect of reducing the number of development actions and raising the level of commitment for each development contracted. Among the more far-reaching consequences

is that competition is limited to a few large contractors on most major development projects. In addition, because subcontractors for sub-elements of the system are often tied to a specific prime contractor, there is the potential of inadequate flexibility to obtain the best qualified developer for each sub-element of the system.

The prescribed procedure for major systems development places heavy emphasis on fixed-price type contracts, apparently on the assumption that technical risks have been minimized by previous efforts. Fixed-price type contracts have been equated, in effect, with competition. This competitive pricing during Contract Definition has led to significant underpricing in numerous development contracts. As a result, cost overruns have been frequent and substantial. The concentration of risks in a single contractor is often out of proportion to the contractor's financial structure and capability, and can result in the Department of Defense being faced with either permitting a default on a critical program, or of salvaging the particular company with payments not clearly required under the terms of the contract.

Fixed-price contracting requirements also create additional pressures for rigid and frozen design and performance specifications which, in turn, restrict the flexibility of the developer to make engineering trade-offs. This factor inhibits the developer's capability to achieve the best product.

In addition, the prescribed process by its very terms contemplates a high level of concurrency of development and production which, in practice, has proved to be fraught with propensities for cost growths, schedule delays and performance failures.

In practice, the prescribed process for major systems development produces an unwarranted reliance on paper analysis during Concept Formulation and Contract Definition. A review of major systems developments clearly indicates that although there had been a proliferation of studies in Concept Formulation, the necessary technology to proceed with Engineering Development frequently had not been accomplished through Exploratory and Advanced Development programs. Assumptions that all technical problems can be foreseen prior to the commencement of Engineering Development have proved to be wrong. Repeated experiences demonstrate that technical uncertainty is inherent in the Engineering Development process and that paper studies alone cannot enable government or industry to forecast all of the problems that will arise. Since it has been assumed that the technical risk is low in the development, it is not surprising that cost estimates, based on paper analyses, rather than tested hardware, have proved to be unreliable. This marked tendency to substitute paper analysis for hardware development has serious adverse consequences.

From an internal Defense standpoint, the systems development process creates management problems. Understandably, with such large risks involved in a major systems development, senior Defense officials are reluctant to delegate the scope of authority essential to successful program management.

From the review of major weapon system acquisitions, a major revision of policy is required to: (1) introduce flexibility in selecting the strategy or technique to be used for any given system development; (2) place more emphasis on hardware development during Concept Formulation to reduce technical risks; (3) undertake incremental development of subsystems and components independent, in the initial stages, from major system developments; and (4) introduce multiple decision points during the development and

acquisition of new systems.

If more emphasis and direction is given to the advancement of the technological base as previously recommended, then the flow of technology would come from a broad base of research through exploratory and advanced developments into component and subsystem developments and subsequently into new system developments or modification programs to existing systems. This approach would both minimize technical risk and increase the number of options available to satisfy Operational Capability Objectives of the Commands.

II-5 A new development policy for weapon systems and other hardware should be formulated and promulgated to cause the reduction of technical risks through demonstrated hardware before full-scale development, and to provide the needed flexibility in acquisition strategies. The new policy should provide for:

- (a) Exploratory and advanced development of selected subsystems and components independent of the development of weapon systems;
 - (b) The use of government laboratories and contractors to develop selected sub-systems and components on a long-term level of effort basis;
 - (c) More use of competitive prototypes and less reliance on paper studies;
 - (d) Selected lengthening of production schedules, keeping the system in production over a greater period of time;
 - (e) A general rule against concurrent development and production, with the production decision deferred until successful demonstration of developmental prototypes;
 - (f) Continued trade-off between new weapon systems and modifications to existing weapon systems currently in production;
 - (g) Stricter limitations of elements of systems to essentials to eliminate "gold-plating";
 - (h) Flexibility in selecting type of contract most appropriate for development and the assessment of the technical risks involved;
 - (i) Flexibility in the application of a requirement for formal contract definition, in recognition of its inapplicability to many developments;
 - (j) Assurance of such matters as maintainability, reliability, etc., by other means than detailed documentation by contractors as a part of design proposals;
 - (k) Appropriate planning early in the development cycle for subsequent test and evaluation, and effective transition to the test and evaluation phase; and
 - (l) A prohibition of total package procurement.
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II-6 Department of Defense Directive 3200.9, Initiation of Engineering Development, should be rescinded.

II-7 Research and Development undertaken to satisfy specific military materiel requirements should be under the staff supervision of the Assistant Secretary of Defense (Engineering Development).

II-8 The Advanced Research Projects Agency (ARPA) should be required to provide a formal technical risk assessment on all proposed new systems prior to the approval of the Development Concept Paper (DCP).

Special Problems in Acquisition of Navy Ships

The problems found to exist in the major weapon systems acquisition process, generally, are as applicable to the acquisition of Navy ships as to other weapon systems. In addition, however, Navy ship procurement and construction suffer from several unique problems.

The most significant differences in Navy ship procurement derive from the fact that the Navy Department is the only customer which buys from its suppliers the types of ships involved. An aircraft manufacturer has potential customers in the Air Force, the Navy, the Army and numerous private air carriers, but the constructors of aircraft carriers and submarines must sell to the Navy, or no one.

Ship constructors do sell other than Navy type ships to non-government buyers. However, the Navy, while procuring fewer ships in recent years, is the source of an increasingly higher percentage of the total funds spent for ship construction in this country.

As a consequence, the procurement process for Navy ships, even more than in other procurements, must reflect a concern for the existence of a sufficiently broad industrial base to provide competition for such procurements.

Since only one Service - the Navy - procures ships, there is no basis for comparison within the Department, as there is with aircraft and missiles procured by more than one Service, to gauge the efficiency of the Navy ship procurement process. This necessitates a much more diligent review of proposed procurements, based on analyses of prior ship constructions.

The procurement of ships involves a construction process more than a production process. Accordingly, economies of scale are not as readily available as in other major weapon systems acquisitions. While proto-typing may not be as feasible for entire ships as for other weapon systems, there is a potential for improvement in the Navy ship acquisition process through prototyping of sub-elements.

In recent years, the emphasis has been heavily weighted toward designing into each ship approved for construction the greatest total capability possible. This reflects inadequate consideration in the requirement process for the trade-off advantages of a larger number of ships of less individual capability as compared to fewer ships of maximum individual capability.

b. Minor Weapons Development

Although Defense management emphasis is heavily focused on major system development, the far more numerous "minor" engineering developments account for approximately three times the level of expenditure associated with major systems. Subsequent procurements do not change the proportion; for when RDT&E and procurement funds are combined, expenditures for "minor" systems are also approximately three times those for major systems.

Although the formal process prescribed for major system development is optional for other engineering developments, the pattern of concept formulation, contract definition and development, and indeed, the entire systems concept, has largely permeated the "minor" weapons and systems developments. There is one notable exception to the major systems process, and that is the absence of high-level management attention to "minor" developments until things really go badly.

In large measure, minor system developments experience the same problems and exhibit the same symptoms that are found in major systems. Some problems, however, are peculiar, either in character or degree, to minor developments. Among these problems is the inadequate level of technical and managerial competence of Defense personnel assigned to operate the minor developments process.

The pay is low by industrial standards for jobs of comparable responsibility, billets are limited and opportunities for professional growth and diversity are inhibited by the requirements of the job. The Government engineer on a small system may write technical sections of the RFP, evaluate the proposals, prepare the work statement for the winner, provide technical direction for the development effort, write the test specifications, perform the engineering tests and provide technical guidance to management, all single-handedly.

Management of the acquisition process is not a career speciality for military officers. In smaller programs, they are often, if not usually, untrained in business methods and technology. They are well versed in the operational aspects of the equipment, but their background and experience often make them ill at ease with cost/time/ performance trade-offs and with their industrial counterparts and their problems. There is evidence that the Services do not have adequate skills to evaluate the capability of potential suppliers, particularly in the manufacturing area.

II-9 In concert with the new development policy recommended for major weapons systems,
the same increased flexibility of techniques should be provided for minor systems.

c. Procurement of Proprietary Items

The broad spectrum of items procured by and for the Department of Defense extends from the smallest and most commonplace items to the most sophisticated and complex systems. In this process, private innovators make a very significant contribution, for the individual items or components, procured separately or as part of subsystems are or were once the products of an innovator. It must be recognized that the traditional incentives which lead people to invest their time, talent, and resources in inventing improved products in competition with others (called proprietary items),* are responsible in no small part for the technological process of our Nation in both domestic and military areas.

Even though the Department recognizes and stresses the importance of private innovation in introductory policy statements in the Armed Services Procurement Regulations (ASPRs) sections on Patent Rights and Rights in Data, the spirit of the policy is often not apparent in the implementation of procurement practices.

Procurement practices presently in use throughout the Department of Defense and other agencies which buy for the Department (e.g., General Services Administration) often tend to establish "negative incentives" for the private innovator to enter the Defense market. Suppliers are often selected and contracts awarded primarily on the basis of price alone, with less than adequate regard for quality, reliability, delivery schedule, improvement of products, or maintenance of production (or innovative) capacity. Reverse engineering, that is preparing the necessary data to manufacture the product by examining the product itself, is used by the Government to establish new suppliers purely to maintain the assumed necessity of having more than one competitive source. Adverse disclosures by manufacturers and suppliers of catalog items frequently are needlessly required by data acquisition practices. In summary, the basic problem with respect to procurement practices for proprietary items is the deviation of procurement practices from the policy of encouraging innovation, and the belief by Government buyers that it is their duty to force a price competition.

A significant concern with respect to patents is the increasing number of instances in which the Department of Defense takes ownership of patents developed on contract, rather than acquiring license rights for government use, with the contractor retaining the rights for commercial use. To attract the fullest competition of the best qualified companies, the Department's patent policy should require only the granting to the Government of a non-exclusive, royalty-free license under patents for inventions made in the performance of the contract, and not a license under background patents of the contractor. A policy of seeking rights in background patents or the taking of title to inventions by the Government, tends to discourage the best-qualified companies from accepting or, in some cases, competing, for contracts. This results in the Department of Defense having to accept less qualified companies, and the strong possibility of reduced competition for its contracts. This does not result in achieving the Department's principal objective, which should be to obtain the best results at the desired time and at the most

*The following definition was taken from "Webster's Third New International Dictionary": PROPRIETARY ITEM - an item that is protected by secrecy, patent, or copyright against free competition as to name, composition, or process of manufacture. In common parlance, the term is often used to refer to an item developed by a manufacturer at his own expense and offered by him as a standard item for sale to a large number of customers.

reasonable price.

The Department's data policy provides very limited protection for previously-generated proprietary data. The Department's data policy must enable it to perform its missions in the most effective and economical manner consistent with its long-term needs, and in a manner which most effectively maintains the technological base upon which it depends, while taking full advantage of the incentives of the competitive free enterprise system.

It is important for the Government to undertake a rededication and re-establishment of adherence to its oft-stated policies for motivating and protecting the private innovator. The Department of Defense should recognize and reverse certain trends within its components which are having the effect of stifling the initiative to invent or innovate. The Department should also recognize that, while obtaining only that proprietary information essential to accomplishing Government purposes, the price should be commensurate with the value of the information received.

II-10 *The stated policy of the Department of Defense to provide incentives to encourage private innovators' participation in the development of defense products should be reaffirmed and promulgated. The reaffirmation of policy should be supplemented by directives -*

(a) *To improve procurement practices by requiring the submittal of bid samples in the procurement of catalog items;*

(b) *With respect to patent rights, to define "Subject Inventions"; as*

(1) *Those inventions originally conceived pursuant to the research and development work specifically called for by a Government contract; and*

(2) *Those inventions conceived prior to the award of a Government research and development contract which have not been reduced to practice constructively or actually prior to said award, and are first actually reduced to practice pursuant to the research and development work specifically called for by the contract; and acquire for the Government a royalty free non-exclusive license in patents based on Subject Inventions, for Governmental purposes; and*

(c) *With respect to Rights in Data, to obtain only that proprietary data essential to accomplishing Governmental purposes other than manufacture or reprocurement, and to establish new basic categories of data rights:*

(1) *Unlimited - including publication rights;*

(2) *Limited - prohibited for reprocurement or manufacture, and*

(3) *Production - right to use (license) for procurement and manufacture.*

4. Special Problems in Development

a. Program Management

There are two general approaches to organization for management of engineering or operational systems developments - vertical and matrix.

The vertical organization is one in which a special Program Management Office is constituted, with all staff elements assigned on a full-time basis and reporting to the Project/Program Manager. Typically, for major weapons systems, the head of this Project Office, or Program Manager, reports to the Deputy Commander for Systems Management of the procuring command, some five-or-six levels below that of the Secretary of the Military Services.

In the matrix organization, the Program Management structure is superimposed upon the functional organization of the procuring or development command of the particular Military Service. In other words, a Program Manager is appointed for the specific project, but instead of professional personnel being administratively assigned to the Program Manager as his staff, personnel within various existing staff organizations are designated to supply staff support in their technical or other specialties to the Program Manager as required. Those personnel who provide the technical staffing to the Program Manager do so as an additional duty to their normally assigned duties in the functional organization of their command. Their efficiency ratings, promotions and reporting lines are not to or through the Program Manager, but rather to their superior within the functional organization. One individual may, therefore, concurrently be performing the normal duties of his functional assignment and serving in a staff capacity to one or more Program Managers.

The prescribed Department of Defense Program Management policy quite clearly recommends the use of the matrix organization, and this is the organizational approach most often used. The exceptions have been on those programs which have received constant top-level Department management attention. In programs managed through Development Concept Papers, the Program Management structure is specified for each system, to include not only the Program Management organization, but also the lines of reporting for the Program Manager. For instance, the Program Manager for the F-15 aircraft development has been provided a reporting point only one level below the Chief of Staff of the Air Force.

Program Management assignments have not generally been recognized as having good potential for career advancement for military officers. Program management is not effectively a career service for military officers, although military officers act as Program Managers on a majority of developments, and are almost always designated as Program Managers for major systems. These officers have traditionally been rotated on normal tours of duty (2-4 years) among a variety of types of jobs. Although they usually bring to the Program Manager assignment knowledge of the operational use of the type of system involved in the development, they often have a minimum of training and experience in business management; yet they are faced with the task of negotiating with and monitoring the efforts of industrial organizations which bring to the problem talented, technical and management personnel with extensive continuity and experience in the particular type of activity encompassed in the development. In addition, Program Managers have been often rotated, based on the time in their careers, at critical points in the development of the programs and frequently with no overlap for training their successor.

Indeed, there is no indication of consistent efforts by the Services to select Program Managers from among those officers who have the most promising potential. Ideally, a Program Manager should possess both managerial and technical skills and experience in the operational employment of the type of system, weapon or other hardware under development. Recently, in connection with major systems, significant emphasis has been placed by the Secretary of Defense on encouraging the Military Services to provide better selection and tenure and more continuity in Program Management assignments.*

A number of factors detract from a Program Manager's capability to perform his responsibilities in an efficient and effective manner. In a matrix organization, authority is so dispersed, and the Program Manager is so far below the level of organization which has the authority to make affirmative decisions on matters of significant import that his management capability is seriously impaired. Imposed on Program Management is a proliferation of reporting requirements for a wide variety of cost, schedule and technical data to satisfy the management and reporting systems specified by all higher headquarters, which preoccupy the manager's time to the exclusion of substantive management. This distraction from the substance of the Program Manager's responsibility is aggravated by the necessity of providing innumerable briefings to commanders and staffs of the many commands layered between him and the Military Department Secretaries, and to visiting officials.

In vertical organizations, the management system maze and the extensive reporting requirements often result in an excessively large staff for the Program Manager. A Program Management Office on a major system can include more than 200 people, adding significantly to the overall management cost of the project.

Top Defense management attention is frequently given only to those developments with high public visibility. The concentration of top Defense management attention on these selected major systems has permitted program management for less visible major systems and for minor developments to continue to flounder. Significantly, recently undertaken corrective action has been directed at major high-cost and controversial programs. Unfortunately, there are far too many development programs for each to be addressed on an ad hoc basis. Basic directives must be modified and ground rules must be devised for program management in general if the fundamental weaknesses of program management are to be eliminated.

The weaknesses of program management have been increasingly aggravated by the growing breadth of responsibility and complexity of tasks of the Program Manager. With the increased application of the systems concept of development, Program Managers find themselves responsible for administering a fixed-price contract for development of a product to detailed design specifications in which they are permitted little flexibility for technical trade-offs. In systems developments, a Program Manager is also likely to be given responsibility which encompasses a span of sub-elements involving a wide variety of disciplines and technological skills, the aggregate of which he may well be inadequately trained to handle.

A shift in emphasis toward separate component developments, as previously

*See Chapter IV, Personnel Management.

discussed, could result in a more feasible scope of management for the Program Manager, and thereby contribute more to the elimination of program management weaknesses than would any particular change in the organization of reporting relationship of the project management.

The choice of either a vertical organization or a matrix organization for all program management is not a feasible solution to program management deficiencies, for each organizational type has its benefits and liabilities. The vertically organized, all-on-one-payroll organization has the best record of success in development programs with a high degree of urgency, concurrency, technical span and cost. It prospers at the expense of functional organization, however, and there are practical limitations on the total number of vertical organizations which can be manned with qualified personnel and managed through an ad hoc or special reporting relationship outside the normal chain of organization.

An advantage of the matrix organization is that it can be more quickly staffed and more easily dissolved when no longer required. Scarce technical personnel can be shared between programs. In addition, the numbers of development programs which can be managed through matrix organization are not severely limited. Since the use of matrix organization appears both desirable and necessary for the majority of programs to be managed, the deficiencies of the organization, consisting primarily of the many layers of intermediate command and staff between the program manager and the Secretary of the Service, and the constrained and impaired authority of the program manager must be alleviated. Selection, training and tenure of the program managers operating in matrix organizations cannot continue to be neglected by the top levels of defense management.

The division and confusion of authority among the Program Manager, the contracting officer and the contract auditor fragments and weakens program management. Although the Program Manager is assigned overall management responsibility for the project, the authority for administering the contract is vested in the contracting officer. The contract auditor is independent of both, and reports through independent channels to high levels in the Department.

II-11 The effectiveness of Program Management should be improved by:

(a) *Establishing a career specialty code for program managers in each Military Service, and developing selection and training criteria that will insure the availability of an adequate number of qualified officers. The criteria should emphasize achieving a balance between needs of a knowledge of operational requirements and experience in management;*

(b) *Increasing the use of qualified civilian personnel as Program Managers;*

(c) *Providing authority commensurate with the assigned responsibility and more direct reporting lines for Program Managers, particularly those operating in matrix organizational arrangements; and*

(d) *Giving the Program Manager, subject to applicable laws, directive authority over the contracting officer, and clarifying the fact that the contract auditor acts only in an advisory role.*

b. Management Systems

During the past decade, the trend in government contracts for developments has shifted markedly from cost-plus-fixed-fee toward fixed-price contracts, many of which have embodied incentive features. On the surface, this trend would appear to diminish the required level of detailed management by the Defense Department of Contractors' activities. Paradoxically, however, the same period has been marked by a multiple increase in the number and detail of management control systems contractually imposed by the Defense Department.

A number of factors evidence the excessiveness of the existing level of management control systems. For example, the sheer volume of reporting requirements exceeds, by a substantial margin, the review capability of managers within the Department of Defense. More significantly, the increase in management control systems has not cured the cost overrun or schedule delay problems. A reduction in management control systems would both reduce the reporting load imposed on industry by that portion which is duplicative or serves no useful purpose, reduce the cost to the Department, and improve the effectiveness of management control.

This problem has been formally recognized and acknowledged since 1966, when the Department initiated a management systems control project, and established an office under the Assistant Secretary of Defense (Comptroller) as the central responsibility within the Department for this area. In 1968, sound policy guidance was issued and two Department of Defense Instructions to implement that guidance were published.

Despite the issuance of policy statements and the assignment of specific responsibility for the control of development of management control systems for use in the acquisition process by the Department of Defense, there has been little standardization or reduction in the number of management control systems contractually applied. So many management control systems now exist that the process of review and analysis, to determine what should be the revisions and consolidations and/or cancellations of the thousands of existing management control systems documents, consumes an inordinate amount of time. Unfortunately, the effort lost momentum and the emphasis of top management in the process. In September 1969, the Office of the Comptroller was reorganized and the responsibility for this activity was moved to a lower echelon, thereby de-emphasizing, or appearing to de-emphasize, this activity. The roll-back of approved management systems and the stabilization of the remainder is unlikely to occur without top-level attention in the Department of Defense on a continuing basis until the job is done.

Akin to the problem of contractually imposed management control system requirements are the problems of the internal Department of Defense management information/control requirements. The documents in which the requirements are defined stem from the Department's Directive/Guidance System and take many forms in OSD, the Services and the Defense Agencies. The Assistant Secretary of Defense (Comptroller) also has the central responsibility for these internal requirements. As is true with regard to contractually-imposed management control requirements, no real progress has been made in reducing the proliferation of systems and documents used within the Department of Defense.

II-12 *The Secretary of Defense should establish a small staff within the Coordinating Group reporting to him and assign it the responsibility of effecting both a major improvement and reduction in the control and information needed for management within the Defense Department and, in turn, of its defense contractors. This should be done by specifying what is required, not dictating how to manage. Immediate top-level support to follow the current management system control project through to its successful conclusion should be one of the first actions. Included in this action should be direction to implement Instructions 7000.6, "Development of Management Control Systems Used in the Acquisition Process," and 7000.7, "Selection and Application of Management Control Systems in the Acquisition Process," with the control responsibility specified therein for the Assistant Secretary of Defense (Comptroller) reassigned to the Coordinating Group.*

c. Cost Estimating

Studies reveal that on the average, cost estimates on major systems developments have probably improved in relative accuracy over the past fifteen years. So many variables affect the evaluation of cost estimates, however, that confidence in such a conclusion must be qualified. In any event there is much room for improvement.

Cost estimating for development programs has apparently been too widely credited in the Defense Department, in industry, in the Congress and by the public with a potential for accurate prediction which is belied by the inherent technical uncertainties in developments. The precise problems which may be encountered in the process of attempting to convert a technological or scientific theory or experiment into practical, producible application cannot be foreseen with accuracy. It should be axiomatic that one cannot place a price on an unknown; yet, the increased resort to fixed-price contracts, the use of precontractual cost estimates as a firm baseline for measuring performance throughout the life of the system, and the shock reaction which is forthcoming when cost overruns or growths are experienced, all evidence an unwarranted degree of confidence in cost estimates.

The inherent limitations on cost estimation imposed by technological uncertainties cannot be completely overcome. Other factors, however, also contribute to the inaccuracies of cost estimates. The understandable incentives to sell a development program, either to senior decision-makers in the Executive Branch or to Congress, can influence cost estimates to be on the low side. Contracting policies and procedures also have a tendency to suppress the level of cost estimates. The cost estimates must be used as a basis for requesting and justifying authorizations and appropriations. In addition, the competitive pressures on prospective contractors during Contract Definition, as previously discussed, leads to overoptimistic proposals which support the original cost estimates rather than take into account the possible effects on costs of the inherent uncertainties.

"Parametric" cost estimation techniques offer the potential for improved planning of cost factors. These parametric techniques require the analysis of historical data to establish some broad gauge such as cost per pound for component units of the program being evaluated. The broad nature of the product of this type of analysis precludes detailed comparisons with the estimated program costs developed from its elements, but the difference in gross totals can indicate a probable range of magnitude of the costs of

contingencies. The Department has, to some extent, recognized a significant portion of their potential. The use of the parametric approach to cost estimation is, of course, a clear acknowledgement of the inherent limitations and imprecision of any cost prediction methods.

Whatever method or methods of cost estimating are used, the availability of a data base on previous programs is essential, and the extent of availability of such data in usable form is a limiting factor on the potential accuracy of cost predictions. Efforts are being made to collect systematically and preserve such data on contemporary developments. Only time will provide an improved data base for projection.

The potential accuracy of cost estimates also varies according to the time period in which it is made, relative to the phase of the development program. Cost estimates made early in the concept formulation phase cannot be expected to yield the accuracy which is possible for such an estimate made after the first stage of actual development.

Cost estimating capabilities also fluctuate with the relative complexity of developments. They are most difficult and least credible for complex operational system developments.

While every effort should be made to improve cost estimation capabilities through compilation of a more extensive data base, wider use and more reliance on parametric techniques and a continuous effort to achieve objectivity in estimation, the most fundamental problems associated with cost estimation cannot be resolved without a general recognition and acknowledgement of the inherent limitations of cost estimates for development programs.

For this reason, the original cost estimates should be considered only as the initial baseline and as more knowledge is gained these estimates should be revised and a new substantiated baseline established. This approach should be incorporated into the Selected Acquisition Reports (SARs) used within the Department and by Congress.

II-13 The management cost information needed within the Department and for visibility to Congress on major weapon systems acquisitions should be improved by recognizing the evolutionary nature of cost baseline estimates. Estimates should be reevaluated at each significant milestone of development.

II-14 Increased use should be made of parametric costing techniques to improve the quality of original and subsequent estimates, and to help offset the difficulties of estimating the cost of unknowns.

d. Industry Weaknesses

A review of the defense development process would be incomplete without a discussion of the role of industry and its share of the responsibility for the problems within the process.

One serious weakness of industry is the tendency toward overresponsiveness to every expressed or implied desire of Department of Defense personnel. Overresponsiveness should not be substituted for the exercise of responsibility. As a management team member, it is the responsibility of industry to point out to the Department the true nature of acquisitions and developments as seen by industry. For example, the following are areas in which industry has demonstrated an overresponsiveness on specific developments:

- (1) Unquestioned acceptance of inefficient and unnecessary management control system requirements and related data items.
- (2) Failure to point out the potential risks associated with the inherent technical uncertainties in the development of a specific weapon system.
- (3) Over optimistic cost estimates and, in some cases unwarranted buy-ins.
- (4) Unquestioned acceptance and, in some cases, promotion of overly sophisticated design solutions to satisfy the stated requirements.

Industry has also demonstrated reluctance to have a continuous meaningful dialogue on certain procurements by communicating to the government Program Manager potential major technical, cost or schedule problems as soon as they are first identified.

Another weakness originates in the possible belief by a contractor that he has obtained his contract wholly or in part through political favoritism or pressure; this can seriously undermine the authority of the Program Manager. The degree to which the Program Manager's authority is undermined does not depend on whether or not there was, in fact, a political motivation in the selection of the contractor, but on whether the contractor believes such was the case.

Some existing practices contribute to beliefs by contractors and by the public that political influence can and does affect the selection of contractors. It is and has been customary for the Executive Branch to provide members of the Congress with 24 hours notice of contract awards in their States or Districts, as the case may be, prior to the public announcement of the contract award. Frequently, therefore, contractors and the public learn of the contract award from a Senator or Congressman prior to the public announcement. This gives rise to an inference, however much belied by the facts, that the political officeholder making the announcement of the contract award had some influence on the selection of the contractor.

Potentially, the most serious weakness is the trend of the demonstrated reluctance by industry, whether justified or not, to commit resources to defense business. If this trend continues, the Nation's defense posture will be seriously weakened, as a dedicated industrial capability is essential to maintaining that posture.

Many of the recommendations in this report are specifically addressed to making a substantial improvement in the overall defense procurement environment. Even though the environment is largely controlled by the government, industry must also assume a more

responsible role if the full potential for improvement in the environment is to be realized, and the rising cost of weapon systems stemmed.

II-15 Individual contractors should accept a more responsible role as management members of a defense development team, and provide the Government with the benefit of greater objectivity in the contractor's independent evaluation of a proposed development.

II-16 The practice of providing the members of the Congress 24-hour advance notice of contract awards should be discontinued. Such members should be notified concurrently with public announcement of contract awards.

e. Defense Laboratories

Currently the Department of Defense has 78 laboratories and 48 test and evaluation centers. These owned activities consume some 18 percent of the Research, Development, Test and Evaluation appropriations. They also directly manage about 15 percent of Defense Research and Development work done on contract outside the government. Of those funds appropriated to Research, Development, Test and Evaluation in Program VI, the Defense laboratories, including test and evaluation facilities spend in-house: about 33 percent of Research (6.1); about 40 percent of Exploratory Development (6.2); about 12 percent of Advanced Development (6.3); and about 15 percent of Engineering Development (6.4).

This distribution of funds clearly indicates that Defense Laboratory in-house efforts are concentrated in the budget categories of Research and Exploratory Development, both of which are funded for level of effort, rather than by project.

The Defense Laboratories and test and evaluation centers are organized by (1) military arms (e.g., infantry), (2) hardware function (e.g., missiles), (3) technical discipline (e.g., electronics), and (5) climate (e.g., desert).

The purposes of Defense Laboratories are to: (1) maintain national competence in areas of technology peculiar to military needs; (2) provide a technological capability for quick response to unpredictable needs and opportunity; (3) provide a working interface between military commanders and planners on the one hand and the technological community on the other; and (4) act as advisors in the Defense RDT&E contract program.

Overall, the productivity of Defense in-house laboratories appears low compared to the very substantial investments in them. This is particularly true with respect to Army Laboratories, and those Army Laboratories connected with arsenals appear least productive.

Defense Laboratories and test and evaluation centers are not organized in any systematic fashion. They are fragmented along technology lines with limited scope and

responsibility. The Army has 55, the Navy 45, the Air Force 25 and the Defense Atomic Support Agency, 1. Consolidation of laboratories and centers to achieve a more nearly matched functional alignment with the scope of normal problem areas is very badly needed. Efforts at consolidation are being made, but the rate of progress is far too slow. One of the major impediments to consolidation is the difficulty with obtaining funds for military construction. There is no legal method, at present, whereby a Service may sell several old facilities and use even a part of the proceeds to build a new one or expand an existing one.

The Defense Laboratories and test centers suffer from a rigid personnel system which inhibits qualitative improvements to the technical staffs and fails to promote or move the more competent people into leadership positions. These laboratories and centers are controlled through fiscal means. The Army and Navy laboratories are industrially funded, and the Air Force is moving toward industrial funding for its laboratories. The laboratories are, nevertheless, subjected to arbitrary personnel ceilings and reductions. Since the laboratories' employment of scientists and engineers is within the Civil Service system, seniority criteria, rather than innovative production, is the primary factor determining promotions and reductions-in-force. It has been customary to appoint laboratory Directors, and often Assistant Directors, from outside the system. While this can provide a transfusion from the broader scientific and engineering community, it also removes an incentive for career personnel who cannot aspire to higher than the third level job in the laboratory. There is no workable mechanism for scientific and technical personnel to be moved freely within the Department, because the personnel systems of each of the three Services and the Office of the Secretary of Defense are separate and different. These personnel inflexibilities result in a high degree of personnel stagnation in the Defense Laboratories, which must account in part for their relatively poor productivity.

As noted above, the Defense Laboratories and test centers, in addition to their in-house work, actually manage about 15 percent of the Defense Research and Development work done on contract. This circumstance presents a conflict-of-interest problem. The laboratories as developers are in competition with private contractors, and are also managers of the contracts under which their competitors operate. There is an inclination on the part of some laboratories to show favor to products "invented here" and to view very skeptically any products "not invented here". The R&D laboratories are located far down in the organizational structure within organizations which have much broader responsibilities than just R&D. There is no R&D chain of command from bench to the policy level. Consequently, close monitorship to control the "not-invented-here" attitude is impossible.

II-17 *The Advanced Research Projects Agency (ARPA) and the Defense Test Agency (DTA) should be directed to make a joint review to determine which in-house defense laboratories and test and evaluation centers are essential to research and development needs of the Department with the goal of eliminating the nonessential ones, and consolidating (across Services) the remainder.*

II-18 *A procedure should be authorized by Statute whereby all or a part of the proceeds from the disposal of existing defense laboratories or centers can be used for construction of*

a new facility or expansion of an existing one which such construction or expansion has been authorized by Congress.

II-19 Close attention should be given to the possible advantages of having some of these laboratories and centers government-owned but contractor-operated.

C. Operational Testing and Evaluation

Everyone seems to agree that Operational Testing and Evaluation (OT&E) is very important; however, there are significant differences of opinion as to what it encompasses, what its proper objectives are, and what organization and methods are necessary to accomplish it most effectively.

It has been customary to think of OT&E in terms of physical testing (under various designations such as operational suitability testing, employment testing, service testing, or field experimentation). It is essential to recognize that the primary goal of OT&E is operational evaluation, and that while operational testing is very important it is only one method of evaluation. To be effective, OT&E must be a total process, using all appropriate methods of evaluation, which spans the entire cycle of a system from initial requirement until it is phased out of the operational forces. If OT&E were limited to physical testing, it would lose much of its opportunity to contribute to decisions on whether to produce a system, and would seldom be able even to influence the system's characteristics and capabilities in any major way.

Much OT&E does, however, involve physical testing and, therefore, it is important to distinguish between "functional" testing and "operational" testing.

Functional testing (often called engineering testing) is done to determine how well various systems and materiel meet design and performance contractual specifications – in other words, whether they meet technical requirements.

By and large, functional testing in and for the Department of Defense appears to be well understood and faithfully executed. Serious policy deficiencies are not apparent, and such failures in functional testing as occur can be primarily attributed to lack of technical competence, oversight, or procedural breakdowns. Functional testing is not considered to be a major problem area.

Operational testing, on the other hand, is done to determine to the extent possible whether such systems and materiel can meet operational requirements. It must provide advance knowledge as to what their capabilities and limitations will be when they are subjected to the stresses of the environment for which they were designed (usually combat). Operational testing must take into account the interface with other systems and equipment, tactics and techniques, organizational arrangements, and the human skills and frailties of the eventual users.

There has been an increasing desire, particularly at OSD level, to use data from OT&E to assist in the decision-making process. Unquestionably, it would be extremely useful to replace or support critical assumptions and educated guesses with quantitative data obtained from realistic and relevant operational testing.

Unfortunately, it has been almost impossible to obtain test results which are directly applicable to decisions or useful for analyses. Often test data do not exist. When they do, they frequently are derived from tests which were poorly designed or conducted under insufficiently controlled conditions to permit valid comparisons. It is especially difficult to obtain test data in time to assist in decision-making. Significant changes are essential if OT&E is to realize its potential for contributing to important decisions, particularly where the tests and the decisions must cross Service lines.

Participation in or supervision of OT&E by OSD and JCS has been limited and fragmented. There is no assignment of overall responsibility at such levels for deciding what OT&E should be done, prescribing and monitoring how OT&E is done, or insuring that results reach those who need them.

A Directorate of OT&E was established in 1966 within the Office of the Director of Defense Research and Engineering, under the Deputy Director (Administration and Management). Although establishment of this organization was an acknowledgement of the need for attention to the operational aspects of testing and evaluation, the authority and resources of this Directorate were very limited initially and have decreased since. It has had little, if any, influence on OT&E.

In 1968, the Deputy Secretary of Defense requested the JCS to consider the establishment of a small Joint Test and Evaluation Agency. The JCS replied such an agency was unnecessary, and expressed the belief that there already existed within the Organization of the JCS, the Services, and other agencies the capability to plan, conduct, and evaluate the results of operational tests, including tests involving joint forces. However, it is evident that this capability does not exist and that the ad hoc testing on which the JCS relies produces very little useful data in support of decision-making.

The most glaring deficiency of OT&E is the lack of any higher-than-Service organization responsible for overseeing Defense OT&E as a whole.

In the absence of regulation or guidance from higher authority, it is not surprising that the Services differ substantially both in OT&E philosophy and in organization to carry out and report on OT&E activities. There are three basic ways to organize for OT&E:

1. An independent organization reporting directly to the Chief of Service.
2. An organization subordinate to the developer.
3. An organization subordinate to the user.

At the present time, all of these organizational alternatives may be found in the Services.

The Army system of testing and evaluation is currently being reorganized to place more emphasis on OT&E – particularly on doing operational testing earlier in the development cycle. The objective is to introduce the results of valid operational tests into decisions

concerning the initiation and the extent of production. The Army's approach is centered upon a newly-conceived Operational Service Test, scheduled to be completed prior to decision to commence full production. The basic problem with Army OT&E is that the developer, in effect, tests and evaluates the operational suitability of what he develops.

The Navy system of OT&E has two main characteristics: (1) it is principally implemented by an independent OT&E organization reporting directly to the Chief of Naval Operations, and (2) there is a formal way of getting operational evaluation (including some operational testing) done early in the overall process. The main deficiency in Navy OT&E is that it generally produces few hard data. It relies too much on the judgment of well-qualified officers and does not adequately utilize testing techniques available for obtaining measurements of scientific validity.

The Marine Corps does not have an organization devoted solely to OT&E, but the Commandant tasks the Marine Corps Development and Education Command with having it done when deemed necessary.

The Air Force currently has the most structured system of testing found in the Services. Basically, it is divided into two types: Acquisition Testing and Operational Employment Testing.

Acquisition Testing is made up of three categories: Categories I and II are essentially R&D testing and are the responsibility of the Air Force Systems Command (AFSC). Category I is actually performed by contractors and has little or no operational flavor. Category II is done by AFSC, with the contractor still very much involved. Ideally, Category II tests a complete system in as near an operational configuration as practicable at that stage of development, but in actual practice such tests are seldom operational in nature.

Category III is the first Air Force testing that can be called OT&E. It comprises tests and evaluations of operationally-configured systems and is done by the appropriate operational command - the ultimate user.

Operational Employment Testing is pure OT&E. It is conducted by the using command and is closely related to integrating the new system into that command. Its objectives include the development of tactics and techniques of employment, identification of operational problems not revealed by earlier testing, and validation of requirements for system modification. This kind of testing places great emphasis on realism of environment and missions, limiting personnel skills and support to those that would be available in such an environment.

There are three principal problems with Air Force OT&E, as currently done. First, operational considerations receive much too little attention in Categories I and II. Second, the operational commands responsible for Category III and Operational Employment Testing lack both the personnel and facilities to be effective. Finally, all of the categories are too duplicative and time-consuming.

Currently, there is no effective method for conducting OT&E which cuts across Service lines, although in most actual combat environments, the United States must conduct combined operations. The interactions among Services become extremely important during combat, and critical military missions transcend Service boundaries and responsibilities (for example Close Air Support, Reconnaissance, and Air Supply). Because of the lack of joint

OT&E, it is not only very difficult to detect certain kinds of deficiencies and to predict combat capability in advance, but it is also difficult to make decisions relating to overall force composition.

Funding throughout the Department of Defense has been and continues to be inadequate to support much necessary OT&E. Also, the funding of OT&E is confused, both at the OSD level and within the individual Services, and neither in OSD nor in any Service is there a single agency responsible for insuring that OT&E is adequately funded. In fact, there is no agency that can even identify the funds that are being spent on OT&E.

Funding within the individual Services differs substantially. In general, however, OT&E funds are difficult to identify because they come from several budget categories such as RDT&E and Operations and Maintenance (O&M). Because funds earmarked for OT&E do not have separate status in the budget, or in program elements, they are often vulnerable to diversion to other purposes.

It seems evident that separate program elements for OT&E must be established within the Services if OT&E is to receive the financial support required, and prohibitions provided against diversion of OT&E funds. Even then, OSD must assume the responsibility of insuring that the Services budget adequately for OT&E.

II-20 The responsibility for Defense test and evaluation policy should be assigned to the Assistant Secretary of Defense (Test and Evaluation).

II-21 A separate program category should be established for Test and Evaluation.

II-22 The responsibility for overview of Defense test and evaluation effort should be assigned to the Defense Test Agency. In addition, the Agency should be responsible for design or review of test designs, performing or monitoring of tests, and continuous evaluation of the entire test and evaluation program.

III. PROCUREMENT

The Department of Defense procurement program involves approximately 12 million project actions a year. These are consummated by the Department of Defense procurement work forces of approximately 46,000 personnel, of which about 91 percent are civilian employees. For Fiscal Year 1968, contracts were awarded totaling about 43 billion dollars for supplies and services.

The complex and dynamic Defense procurement environment and the associated procurement process are characterized by a variety of significant and increasingly serious problems.

A. Statutory Framework

The basic statute controlling procurement by the Department of Defense, except of land, is the Armed Services Procurement Act of 1947, as amended, now codified and incorporated in Title 10, Chapter 137 of the United States Code.

The Armed Services Procurement Act is at variance with the realities of Defense procurement and adds considerably to the overhead costs of the Department of Defense. The Act stipulates that procurement contracts are to be made by the use of formally advertised contracting methods, but to this general rule the Act provides 17 conditions of exception under which negotiated contracts may be used.

The priorities established by this statute do not reflect the realities of Defense procurement. Actual Department of Defense procurement needs are such that only 10 to 12% of the Defense procurement dollars is spent through the method of formally advertised procurement which is established in the statute as the general rule.

When a contract for procurement of goods or services is negotiated, it must be under the authority of one of the 17 statutory exceptions to the general rule and such actions, as noted, involve 88 to 90% of the dollars involved in Defense procurement actions. When a contract is negotiated, the statute prescribes that the procuring agency must prepare a Determination and Finding (D&F) documenting the conditions and circumstances and justification for utilization of the particular exception to the general rule for procurement. The D&F must be attached to the copy of each negotiated contract, which must be filed with the General Accounting Office. The Determination and Finding is also required by statute to be kept on file in the office of the officer making the D&F for a period of six years.

The consequence of the statutory prescriptions and the D&F requirements place the officers of the Department of Defense in the position of being required to document and explain why they are using the most appropriate procurement method rather than an inappropriate one. The preparation, review, submission and filing of the required D&Fs demand and receive a significant amount of personnel effort including that of the various Secretaries and Assistant Secretaries of each Military Department.

Although the Armed Services Procurement Act is the principal statutory authority for Defense procurement, it is by no means the only statute governing such procurement. There are approximately 40 separate statutes which affect Defense procurement. These statutes cover such diverse matters as budgeting and accounting, small business, freedom of information, assignment of claims, adjudication of claims, limiting contracts to available appropriations, extraordinary contracting authority for national defense needs, degree of finality and judicial review of agency decisions on contracts, performance bonds, renegotiation, labor standards on public contracts, anti-kickback provisions, convict labor, Buy American, conflict-of-interest, and procurement of supplies made by prisoners and the blind.

Additional statutory authorizations or restraints on Government procurement and contracting are included in the annual authorization and appropriations acts, the organic legislation for specific departments and agencies, and other bits and pieces of legislation scattered throughout the statutes and codes.

The body of the statutory law covering Department of Defense procurement is supplemented by a number of other top-level documents which have a pronounced impact on Department procurement. These include such documents as Executive Orders and Bureau of Budget circulars. Judicial decisions, of course, also impact on Department of Defense procurement through their construction and interpretation of statutory provisions relating to procurement.

In certain respects, the procurement laws are dated; that is, they do not take into account legitimate and useful techniques developed and put into use subsequent to the passage of the procurement laws. For instance, the law accords no recognition to the variety of incentive-type contracts which have emerged in recent years.

B. Armed Services Procurement Regulation (ASPR)

The principal Department of Defense procurement regulation is the Armed Services Procurement Regulation, commonly referred to as "the ASPR", which is to implement the provisions of the Armed Services Procurement Act, other statutes relating to procurement, Executive Orders, Bureau of Budget circulars and, as appropriate, judicial decisions. The provisions of the ASPR are applicable to the procurement of all Department of Defense materiel and services which obligate appropriated funds, except transportation services procured by transportation requests, transportation warrants, bills of lading and similar transportation forms.

The provisions of the Armed Services Procurement Regulation (ASPR) are complex and unrealistic to an extent that obscures Defense procurement policy. The ASPR is prepared and maintained by a committee and is in a constant state of change. The ASPR Committee, which has been in existence for over 20 years, is chaired by an individual from the Office of the Assistant Secretary of Defense (Installations and Logistics). Each of the Military Departments and the Defense Supply Agency have two members on the Committee, one of whom is a specialist in procurement policy matters and the other is a specialist in the legal and contract aspects of procurement.

To accomplish its challenging task, the ASPR Committee meets at least two full days a week. The actual investigation of matters under consideration is farmed out to subcommittees, of which there are 50-60 working at any one time. The activities of these subcommittees involve 200 - 250 personnel.

The ASPR Committee system suffers an apparent inability to resolve, in a timely manner, the issues brought about by changes resulting from new policy, new regulations and new rules. The ASPR process is burdened with a load of coordination that prevents a prompt and continuous flow of changes to the ASPR which are required. There are a significant number of unresolved ASPR problems which have a great impact upon the effectiveness, economy and equity of the Defense procurement process. Many unresolved ASPR issues have been under active consideration by the ASPR Committee for more than a year, and one significant issue dates back approximately seven years.

The principal deficiencies with the ASPR are as follows:

1. The ASPR contains a mixture of procurement policies, practices and procedures which obscures procurement policy, making it difficult to identify, interpret and to comply with.

2. The complexity of the ASPR structure is unrealistic in that its provisions and prescribed practices are difficult, if not impossible, to use within the highly stratified organization administering Defense spending programs, particularly in view of the various procurement personnel grade levels responsible for compliance with the ASPR.

3. The ASPR is in a continuous process of change, a fact which impedes the timely processing of procurement actions, and consumes an inordinate and expensive amount of time of the procurement personnel responsible for compliance with the ASPR.

The ASPR is expanded and supplemented by each Military Department, the Defense Supply Agency and the Defense Contract Audit Agency by means of their separately developed and maintained procurement regulations. These departmental and agency regulations largely parallel ASPR in format and provide additional procurement policy and procedural matter related to ASPR provisions.

From a substantive standpoint, the ASPR gives minimum emphasis to the need for maintaining an adequate industrial base, although the Armed Services Procurement Act gives policy recognition to this consideration with a specific exception (No. 16) to the general rule requiring advertised bids.

In addition to the complex framework of procurement regulations, there is an abundance of Department of Defense and Military Service directives, instructions, memoranda and other guidance material, including circulars, handbooks and guides, which have a pronounced impact on Defense procurement. These documents deal with organization and management, and administrative policy concepts and procedures. Procurement personnel must be governed in practice by these constraints, as well as by the procurement family of regulations.

The Department of Defense directive and guidance system results in an avalanche of paper instructions which are duplicative, overlapping and sometimes contradictory. There is no evidence of a concentrated attempt to reduce the number and scope of the directives and guidance, or to make these documents consistent and harmonious. The need for assessment and review is conspicuous.*

C. Department of Defense Procurement Work Force

Regardless of how effective the overall system of Department procurement regulations may be judged to be, the key determinants of the ultimate effectiveness and efficiency of the Defense Procurement process are the procurement personnel who have the challenging responsibility for interpreting and applying the regulations and associated guidance material. The importance of this truism has not been appropriately reflected in the recruitment, career development, training, and management of the procurement work force. As a consequence, the Department is faced with a significant number of immediate and future problems with respect to the availability in adequate numbers of appropriately qualified and capable procurement personnel. For example, major problems exist with respect to their aging, turnover, capabilities, and utilization.

*See "Management Systems" in this Chapter.

There is a particular urgency in the matter of upgrading personnel involved in contract negotiation and in the system of promotions and reward for the negotiators. That the overwhelming proportion of Defense procurement actions take the form of negotiated contracts is a fact of life and should be recognized as such. Department of Defense personnel who negotiate this great number and dollar value of contracts are involved with negotiators from industry who are key personnel with lifetimes of experience, and paid by industry much higher than the pay received by the Defense contract negotiators. The Defense negotiator is at a disadvantage, to say the least. Skills of Government negotiators obtained through experience are often wasted by the existing system of rewards, which appears to promote the most capable negotiators to supervisory positions, thereby removing them from direct negotiating activities. Contract negotiation is a special skill, different from and often more difficult to develop or acquire than are administrative or supervisory skills. A system of rewards for negotiators, which is commensurate with their skills and does not necessarily require their removal from active negotiations, should be developed.

II-23 The Secretary of Defense should recommend to the Congress and to the existing commission on Government-wide procurement that the Armed Services Procurement Act and other applicable statutes be amended to reduce or eliminate the requirement for Determination and Findings on all negotiated contracts, to reflect the practicalities of Defense procurement needs and activities which result in most Defense procurements being accomplished by other than formally advertised methods, and also to reflect the various new types of contracts developed in recent years.

II-24 The Armed Services Procurement Regulation (ASPR) and the ASPR Committee System should be reviewed with the objective of formulating a more efficient management organization for incorporating changes into the ASPR and with the view toward reduction in the volume and the complexity of the ASPR.

II-25 In the implementation of procurement policy, due regard should be given to the need for an adequate, but not excessive, industrial base.

II-26 Improvement should be affected in the acquisition, training and retention of procurement personnel, with emphasis on a promotion system for contract negotiators which will not necessarily remove them from negotiating activites.

IV. THE INDUSTRIAL MOBILIZATION BASE

The urgent requirement for increased production to support U.S. Armed Forces in World War II and the reluctance or inability of U.S. industry to invest private capital in the amounts and for the purposes required, forced the Government to build a substantial industrial capability.

Following World War II, it was recognized that any future war would not allow time for the construction of production facilities after the start of hostilities. In 1948, the Congress passed the National Industrial Reserve Act "to promote the common defense by providing for the retention and maintenance of a national reserve of industrial productive capability. . . ."

The Department has, therefore, maintained ownership of a large industrial mobilization base consisting of industrial plants and plant equipment. As of 30 June 1969, this Defense industrial base represented an original investment of about \$18 billion. The out-of-pocket support costs associated with maintaining the Defense industrial base in FY 1969 amounted to \$366 million.

Department records do not indicate the condition or capability of the plants or plant equipment. In fact, no records are kept on a majority of the plant equipment in the inventory.

The ownership of the plants and plant equipment encourages the unwarranted belief that the Department has a viable industrial mobilization base that can increase production of vital war materiel on short notice. Experience in the Korean War and the Vietnam War indicates that the continuing rapid advance of technology is changing both production techniques and the items which must be produced at a rate that renders much of the equipment currently owned by the Department so outmoded that it has no utility or is hopelessly inefficient.

It is imperative that a viable industrial mobilization base be established and maintained. However, it does not now exist under the concept of Department ownership of industrial plants and plant equipment. The Department should reexamine its present holdings and, as a matter of urgency, develop and implement a plan to assure that emergency production of high priority war materiel can be initiated quickly and effectively. This can be achieved in many cases only by maintaining an active production life.

The Department continues to buy plant equipment and provide it to contractors on the theory that it is cheaper to maintain ownership of the equipment than to allow the contractors to charge it off to the contracts. As of 30 June 1969, contractors held government-owned equipment with an original investment cost of about \$4 billion.

The Department has not been able to maintain control of its inventory of plant equipment. It attempts to control only the equipment with original unit cost of \$1,000 or more. Even for these items where records are maintained, the Department unnecessarily procures some new equipment through failure to consult the inventory records or through incomplete or incorrect records.

In FY 1969, the Department provided contractors with \$133 million of industrial plant equipment with original unit cost of \$1,000 or more.

Adequate information is not available to determine the full costs to the Department of maintaining ownership of industrial plant equipment; to procure, provide to a contractor for a specific contract, reclaim and store at the end of the contract, and maintain inventory records to permit its reuse when needed. However, it is apparent that the Department is not doing an effective or economical job under the present concept.

II-27 *The Department of Defense should consider buying and providing industrial plant and equipment to contractors only when it can be clearly shown to be to the economic advantage of the Government or when it is essential to the Department's plan to provide a viable industrial mobilization base. Contractors should be encouraged to provide necessary industrial plants and plant equipment, and should be permitted to charge off peculiar plant equipment against specific contracts.*

II-28 *A program should be initiated for the Department of Defense to divest all plant equipment where ownership cannot clearly be shown to be to the economic advantage of the Government.*

II-29 *A plan should be developed and implemented to assure that emergency production of high priority war materiel can be initiated quickly and effectively.*

II-30 *The responsibility for maintaining an inventory and control of Department-owned equipment should be assigned to the Assistant Secretary of Defense (Installations and Procurement).*

V. LOGISTICS

The term "logistics" has a variety of meanings. Here it is interpreted as encompassing the management of all classes of U.S. military consumable supplies and secondary items worldwide, depot maintenance and overhaul of military equipment, plus transportation and traffic management. These logistics functions inevitably account for a significant fraction of the Defense dollar. The sum of their costs in Fiscal Year 1969 was over \$20 billion.

The broad scope of the subject makes pointed summary difficult, but one salient generalization seems to encompass most of the findings.

It is clear that significant military logistics improvement can be achieved through efficient, coordinated exploitation of new technologies in the areas of transportation, communications, automatic data processing (ADP), and Integrated Procurement Management. To date, however, the full potential of these new technologies has not been realized, nor will they be realized in long-range logistics programs that are presently proposed by most of the Military Services.

A. Supply, Maintenance and Transportation

The potential for increased efficiency and improved effectiveness by standardizing or integrating logistics management and activities has long been recognized. Efficient, coordinated exploitation of new technologies in the areas of transportation, communications and automatic data processing offer increasing rewards in effectiveness of logistics support and cost savings.

Congressional pressures for standardization and integration of Defense logistics have been strong and continuous. These Congressional pressures have taken various forms, as several examples illustrate. Congress provided by amendment to the 1953 Defense Appropriations Act that no funds would be obligated for procurement, production, warehousing, distribution or related supply management functions except in accordance with regulations issued by the Secretary of Defense. The 1958 Defense Reorganization Act provides that whenever the Secretary of Defense determines it advantageous in terms of effectiveness, economy or efficiency, he shall provide for carrying out common supply or service activities by a single agency or other organization as he deems appropriate. In 1967, the Defense budget was trimmed by the Congress to "encourage integration" of logistics support.

There has been considerable progress in integrating "common item" procurement and the initial phase of supply management. Despite vigorous efforts to achieve standardization or integration in the remainder of the logistics system, both from within the Department and from the Office of the Secretary of Defense, progress has been slow. To date, the full potential of new technology has not been realized in the post-procurement phases of Defense logistics, nor will it be realized in the long-range logistics programs under consideration by most of the Services. As found by a GAO investigation in March 1968, "OSD has permitted the Services and Defense Agencies to develop management systems unilaterally and independently without regard to inter-Service compatibility or relationships of systems."

Because the impact of logistics integration has fallen primarily on the procurement and initial inventory management phases, the resulting improvements in effectiveness of support of Unified Commands in the field have been minimal compared to the improvements which are possible. The benefits of standardized and integrated logistics have not been extended overseas to any appreciable extent. Defense Supply Agency responsibilities do not extend overseas. Overseas logistics management is currently the responsibility of four organizational units, - one in each Service - each of which has many elements. Because of inherent and continuing differences among these organizations, the Unified Commander must accommodate different terminologies, different measures of logistics performances and, most unfortunately, different degrees of readiness.

1. Impact of Decentralized Supply Systems

The differences among the Services in their approaches to theater supply management illustrate the varying degrees of effectiveness of support, efficiency and economy which prevail.

In the acquisition and initial supply phase of Defense logistics, six principal entities are involved: (1) General Services Administration (administrative equipment, including computer hardware); (2) Defense Supply Agency ("common items"); (3) The Air Force (principally the Air Force Logistics Command); (4) The Army (The Army Materiel Command); (5) The Navy (Naval Supply Systems Command); and (6) The Marine Corps. All

of these organizations operate in the Continental United States; few operate overseas.

The General Services Administration and Defense Supply Agency are procurers and wholesalers whose supply functions are limited to the Continental United States. In estimating new procurement and stockage requirements, the demand and inventory information to these organizations from overseas is limited to what can be inferred from bulk requisitions and occasional asset level reports. No current consumption data is available to them.

The Air Force Logistics Command operates a vertical supply system in which each base, worldwide, is a consumer-customer, supplied directly from wholesale activities located in the United States. The Air Force has no depots overseas. Requisitions received at the wholesale level provide a clear view of consumption data and demand patterns, because they are not filtered through a series of intervening control echelons that aggregate many requisitions over long periods, thereby obscuring demand trends.

The Army supply system, on the other hand, is not vertical, but horizontal. The Army Materiel Command operates only in the Continental United States, and each Theater has its own parallel supply system. There is no greater access for the Army Materiel Command to theater demand trends and consumption data than there is for the Defense Supply Agency. The Army Materiel Command and the theater logistics commands have separate stock funds. In effect, the Army components in the theaters have autonomous logistics systems that procure items from Continental United States wholesale supply agencies. (Vietnam logistics are not separately stock-funded.) The horizontal supply system of the Army provides no effective means for adjustment of inventory imbalances among theaters.

The Navy supply system in the Continental United States is in many ways more centralized than in the Air Force. At three Inventory Control Points (Ships Ports Control Center, Aviation Supply Office and Electronics Supply Office), inventory levels at Naval Supply Centers and other distribution points are monitored, and replenishments of centrally managed items are shipped as necessary. The Navy supports the Sixth Fleet (Mediterranean Sea) directly from the United States through dedicated Navy cargo ships. The Seventh Fleet (Pacific) is also supported directly in part, but the Navy has supply depots in the Philippines and in Japan which also support the Pacific Fleet. These two supply depots are largely autonomous of the supply system in the United States, with the Navy supply system in the United States having little visibility of the demand trends, consumption, or inventory levels in the depots, except on aeronautical items.

The Marine Corps obtains a part of its supply support from the Navy Supply System and some from the Marine Corps Supply System. Its distribution system includes depots and bases and air stations. Despite being dependent on numerous other agencies for its procurement of items from industry, the Marine Corps insists upon stocking and distributing materiel through its own system, which suffers from many of the same type of problems found in the Army system.

Combat Force Commanders in the field have found it necessary to improve the effectiveness of logistics support, and to overcome the lack of logistics integration by creating ad hoc cross-service arrangements. For example, in Vietnam the Navy is designated as Executive Agent for all common items in I Corps area and the Army as Executive Agent for II, III and IV Corps. In the European theater, the Army is designated Executive Agent

for subsistence items for all Services.

There is a close interrelationship between the degree of logistics integration and the use of automatic data processing.

2. Automatic Data Processing

A distinguishing mark of the decentralized and fragmented supply system in the Defense Department is the proliferation of Automatic Data Processing (ADP) systems and programs which are largely incompatible, both intra-Service and inter-Service. This results not only in weaknesses in inventory management and distribution imbalances, but in high and increasing costs of ADP software for a variety of ADP programs to accomplish the same types of functions. The aggregate costs - and confusion - resulting from the development and periodic upgrading, as advanced computers are required and acquired, of ADP programs for each class of supplies by the DSA, the four Military Services and the theater logistics commands, with minimal compatibility, critically impact on the Department's effectiveness, efficiency and economy. The long-range logistics programs under consideration by most of the Military Services will not remedy this problem.

3. Maintenance

Maintenance is the ultimate consumer of all technical supplies and materials acquired by the Department of Defense for support of military hardware - a consumption which amounts to approximately five billion dollars annually. Investment in industrial tooling, equipment and facility capability to support this maintenance function accounts for approximately another one billion dollars annually. About one-third of all Department of Defense personnel are involved in the maintenance function.

Maintenance management resides basically with the Services. (Neither GSA nor DSA has maintenance responsibilities.) Responsibilities for maintenance within the Services are vested for the most part in the same organizations having responsibilities for the supply function.

The maintenance function is divided into three levels: (1) organizational or service level; (2) intermediate, or repair level; and (3) depot, or overhaul level. Generally, the Army performs all levels of maintenance in-theater, but Navy and Air Force depot or overhaul maintenance is performed in the United States.

Integration of maintenance management is the exception, and where it exists, it occurs almost exclusively at the depot level on a selected item basis. For example, the Air Force is designated to overhaul A-7 aircraft engines for both Air Force and Navy, and the Navy performs A-7 aircraft airframe and avionics depot maintenance.

As is the case in supply management, traditional approaches cause variances in maintenance management to continue. For example, the Army and Air Force prescribe aircraft inspections to be performed at intervals measured in aircraft flight time, while Navy aircraft inspections (sometimes of the same aircraft) are prescribed to be performed on a calendar schedule.

The maintenance function is even less integrated than the supply systems. For example, the Army's Tank and Automotive Command (TACOM) is assigned responsibility

for integrated management or procurement and wholesale supply of combat and tactical vehicle items. Depot maintenance is performed by the Service using the item. (In Vietnam, the Executive Agent designation of Navy and Army for operations areas includes maintenance as well as supply.)

In some instances, lack of management flexibility causes uneconomical results. For example, current Department of Navy practices provide for secondary support of reparables through the Navy Stock Fund paid for out of operations and maintenance appropriations. Provisioning spares and replacement of repairable equipments themselves are financed by procurement appropriations. There is no authority to use procurement funds to finance maintenance costs and vice versa. When operations and maintenance funds are inadequate to repair the materiel, responsible officers are faced with the decision either to make uneconomical new procurements or bear responsibility for unacceptable "downtime" on critical equipments. Economy dictates that repairable carcasses be utilized to the maximum extent possible.

II-31 Repair in lieu of replacement should be an allowable charge against the parent procurement appropriation funding the basic equipment.

4. Transportation

All of the Services have extensive organic* transportation resources, and each of the Military Departments is the "single Manager" for some "common user" transportation service.

The Air Force has a considerable number of transport aircraft organically assigned to tactical air units, which are used both for rapid deployment of tactical air units overseas and for intra-theater roles after deployment.

The Navy's organic cargo ship fleet, numbering some 78 vessels, is used to deliver supplies to Navy forces at sea. The Navy also operates an amphibious fleet of some 94 ships in support of the Marine Corps and maintains an organic air transport force of 136 aircraft.

The Army's organic transportation is comprised of wheeled vehicles and helicopters used for tactical mobility and overland supply support, and does not include any global transportation capability.

The "common user" activities are the Military Airlift Command (MAC), for which the Air Force is Executive Agent; the Military Sea Transportation Service (MSTS), for which the Navy is Executive Agent; and the Military Traffic Management and Terminal Service (MTMTS), for which the Army is Executive Agent.

The Military Airlift Command is an industrially funded**airlift service, using both

*Assigned as integral equipment of the using command.

**An industrially funded activity is one which operates with a working capital fund, from which operating expenses are paid, and which is reimbursed through charges to benefitting organizations.

owned cargo aircraft (234 C-141s, with 70 C-5s scheduled for operation by 1973) and contracted commercial carriers (amounting to 617 million dollars in 1969). MAC operates aerial ports of embarkation (APOEs) in the United States and aerial ports of disembarkation (APODs) overseas. It also operates the Air Weather Service and the Aerospace Rescue and Recovery Service. In addition, MAC is the contracting agent for airmail services provided by commercial airlines and for contract airlift services used by the Air Force (LOGAIR) and the Navy (QUICKTRANS) within the United States.

MAC tariffs represent the weighted average costs of military and commercial augmentation airlift from and to overseas areas. The average costs of commercial airlift to MAC include total costs of commercial operators, plus profit. Industrially-funded costs of MAC-owned aircraft, on the other hand, are limited to operations and maintenance plus a portion of operating support costs. The pay and allowances of military personnel (about 37,000 out of 43,000 total associated with the industrially-funded airlift service), the cost of the aircraft procurement, and much of the base operating support costs are excluded.

The majority of airlift is carried out by MAC-owned aircraft, and when the C-5 enters the inventory, there will be little requirement for commercial augmentation for overseas airlift shipments. MAC carriers are primarily designed for the mobility (initial deployment of forces) rather than the steady-state cargo supply mission. (Personnel movements, other than initial unit deployments, are handled primarily by contract commercial carriers.)

The Military Sea Transport Service (MSTS) contrasts sharply with MAC. Although it operates a small (37 dry cargo ships) nucleus fleet owned by the Government, only five percent of the MSTS workload is currently accounted for by these ships. Seventy-eight percent of the cargo is carried by privately-owned merchant ships and the remaining seventeen percent by ships from the "mothball fleet" administered by the Maritime Administration. MSTS "unlike MAC" has no port facilities. Only two of the 37 ships in the "nucleus" fleet are adapted to the mission of military unit deployment. (Only five dry cargo ships have been constructed for the "nucleus" fleet since World War II, and MSTS fully controls one other ship which is privately owned, having been built under a "build and charter" arrangement.) The "nucleus" fleet is manned and operated by civilian (civil service) crews. Unlike MAC, MSTS tariffs for sealift costs are effectively total costs, since its available resources are primarily commercial, and because sealift costs, unlike airlift costs, are not discounted through allocation of costs of the alternate mission of "strategic mobility" (although sealift shares this mission). MSTS is, therefore, primarily a traffic management service, with a small additional role as a transportation operator.

The Military Traffic Management and Terminal Service (MTMTS) has no intercontinental transportation resources. Traffic management within the U.S. is not industrially-funded, but is billed to the shipper on an actual carrier-charge basis. MTMTS has the responsibility (which it executes through industrially funded operations) for movement and storage of the personal property of military personnel, the operation of seven overseas ports for the Air Force, and the operation of Military Ocean Terminals in the Continental United States. (The Navy operates two major port facilities for cargo ships in the United States in connection with large supply centers in support of the Atlantic and Pacific Fleets, and three separate ammunition ports in connection with Naval Ammunition Depots, the ammunition ports being "common user" ports through which ammunition is shipped to all Services.)

None of the above-mentioned organizations exercises traffic management functions within overseas theaters. Theater Traffic Management agencies overseas are operated jointly, but organic transportation resources are maintained, operated and scheduled separately by the respective Service components of the Unified Commands.

The absence of any significant degree of traffic management integration contributes to the loss of efficiency and economy, as well as to impairment of the effectiveness of supply support to combat forces. This can be illustrated by discussion of a few particular problems.

Cargo shipping the world over is now being changed in a revolutionary fashion as old-fashioned "break-bulk" ships are replaced by containerships. The intermodal container can eliminate cargo handling between consignor and consignee. It also greatly increases ship productivity and profitability, because, with swift loading and unloading, time spent in ports is reduced significantly, and it serves to reduce pilferage.

Commercial intermodal containers now account for a major portion of the military cargo shipped to Europe, and, in Fiscal Year 1969, 42 percent of the outbound general cargo that moved through Pacific coast military terminals was containerized. Projected estimates of Department of Defense general cargo containerization in the future range from 65 percent to over 80 percent. Recent tests indicate significant advantages from containerization of ammunition.

Containerization benefits are greatest in terms of cargo protection, rapid delivery, and economy when containers can be "throughput" directly from consignors to consignees and when small shipments can be efficiently consolidated. Container movement scheduling, container carrier booking, and container fleet control can be accomplished most efficiently when intermodal movement is treated administratively as an integral process. For the Department of Defense, the Through Government Bill of Lading (TGBL) serves as the common denominator for dealings with common carriers.

The TGBL is, effectively, a freight forwarding mechanism that encompasses origin-to-destination throughput in a single financial transaction with minimum documentation. It has been used extensively by MTMTS for shipment of the household goods of military personnel, and it is now used for about one percent of military container cargo, with the percentage expected to increase. TGBL tenders incorporate what are, in effect, multi-modal tariff bids, or offerings, which are withdrawn or changed from time to time in reflection of short-term transport market conditions.

MSTS tariffs for container shipment reflect rates offered to MSTS annually by containership operators in individual competitive bids. Low bidders are given priority in the allocation of shipments. The military shipper Service that uses MSTS-administered commercial container services does so under a so-called "through movement" system involving separate billing and documentation for: (1) land transportation to the POE (administered by MTMTS with direct-charge for carriage); (2) Sea transportation (MSTS tariff); and (3) Land transportation to the inland destination overseas (theater responsibility).

In direct competition with this system is the TGBL system administered by MTMTS (MSTS can also administer TGBLs, but chooses not to do so). The MSTS basic concern is that TGBL tenders generally encompass ocean carrier rates lower than those reflected in the

general MSTS tariff. In effect, the TGBL tender incorporates the carrier's current competitive rate.

MSTS has effectively prevented the ocean carriers from offering discounted rates in TGBL tenders by treating seasonally discounted rates as if they were permanent. Carriers who would otherwise offer temporary low rates in slack periods cannot do so if they are not permitted to revert to higher rates in busier periods, which MSTS practice effectively prohibits. Thus, carriers are inhibited from offering seasonal rates for TGBL shipments.

The TGBL issue is less significant in itself than as a manifestation of the more fundamental question as to whether it is any longer efficient to divide traffic management along Service lines. Even if container service and the TGBLs are disregarded, it is possible to demonstrate that least-cost land routing* of export break-bulk cargo to nearby ports can lead to greater overall cost than routing to more distant ports "dedicated" to given destinations. Savings in improved ship loading and reduced coastal movement between multiple ports more than offset increased line-haul costs.

The principle that the sum of minimum costs negotiated for each of several route legs may exceed a single cost negotiated for the entire route also brings into question the management of U.S. traffic overseas. As is noted above, this is the responsibility of joint Traffic Management Agencies subordinate to theater commanders.

Modern container service used in the Department until now has been primarily commercial, involving dedicated shipping under contract in shipments to Vietnam, and primarily, berth term arrangements** for shipments to Europe. Looking into the future, however, each of the Services is anticipating at least some requirement for container fleets owned or leased by the Government. This requirement reflects expectation that containers may be retained for extensive periods in forward combat areas. It also is related to concern over possible needs for containers built to particular military specifications.

Thus, while continuing to use commercial container service under MTMTS and MSTS auspices, each of the Services, OSD and the JCS have initiated a variety of investigations into various aspects of container utility and applications.

As with vehicles, defense container requirements will vary with respect to both time and geography. Overall container requirements and costs will be less if there is a single manager who can allocate and schedule all of the Department of Defense container resources from a central vantage point. This advantage will be denied, however, if the Services' containers do not conform to common standards (with due provision, of course, for Service-unique requirements).

The desirability of consignor-consignee "throughput" of consolidated cargo applies to air shipment as well as to surface shipment. At the present time there is practically no intermodal throughput of airlift cargo. Military air cargo is unitized on pallets, which do not provide the protection required of a true intermodal unitization system. When intermodal containers come to be used for military aircraft, the requirement for smoothness and

*The route that has the lowest cost for the land portion of the haul.

**Arrangements with commercial shippers on a space to be available when needed basis.

efficiency of action at the MAC-MTMTS interface will be more important than it is now.

The fragmentation of logistics functions has another critical impact on defense capabilities which is unconnected with economy and efficiency. There is also vigorous competition for resources between combat force requirements and logistical requirements. Particularly when budgets are declining, this competition is severe. Being fragmented, there is no unified logistics voice to argue effectively for the balance which best guarantees a high state of military readiness.

An even more critical deficiency attributable to fragmentation of logistics responsibilities is the impairment of planning capabilities thereby occasioned. The present decentralized system of logistics presents a confused panorama of participating activities, each of which has overview of only a small portion of total logistics capabilities. Under these circumstances, it is hardly surprising that military operations almost always suffer major logistics crises, particularly in their initial phases.

The decentralization of logistics functions has resulted in the circumstance that only at the Office of the Secretary of Defense is there any significant overview or merger of responsibility for the broad scope of closely interrelated defense logistics activities. Not surprisingly, the Office of Assistant Secretary of Defense (Installations and Logistics) has become involved, not only in broad policy matters, but often in the fine detail of logistics operations. Directives formulated by this office frequently state not only what should be done, but also how it should be done. This condition applies to supply, maintenance and transportation. (The efforts of the Office of Installations and Logistics have been directed primarily at achievement of a greater degree of standardization to promote efficiency, and have met with very limited success.) Integration of logistics functions would, therefore, reduce the necessity for such detailed supervision of, and imposition of reporting requirements on subordinate echelons by ASD(I&L), and, indeed, should permit a substantial reduction in the manning level of this office.

There is a significant potential for improved effectiveness, efficiency and economy which can be realized through increased integration of all logistics functions. There are, of course, logistics problems unique to each of the Services deriving from their differing missions and compositions. Consequently, some of the existing variances among the Services in logistics practices are meritorious, and will, of necessity, continue to exist. Such differences, however, can and should be accommodated within the framework of an integrated supply, maintenance and transportation system. Nor are the differences in missions and compositions so fundamental as to preclude the adaptation of advanced techniques developed by one Service to the logistics systems of the others to accomplish improved effectiveness, efficiency and economy.

There is substantial room for improvement and greater integration of management throughout the supply, maintenance and transportation systems of the Department. The most critical need for improved effectiveness, however, is in the support of the Unified and Specified Commands, and first priority should be placed on integrating the logistics support activities for the overseas combatant forces.

In summary, the logistics system of the Department of Defense is decentralized and fragmented in functional assignment. However, this is not critical in such activities as procurement and the initial warehousing phase (excluding a part of wholesale supply, retail supply, maintenance, traffic management and transportation). Efforts of the Congress and

the Office of the Secretary of Defense to improve efficiency and effectiveness of the other activities through standardization of procedures and approaches have achieved very limited improvements. As a consequence, the current inventory management, distribution, maintenance, and transportation systems are needlessly inefficient and wasteful, and even more important, fall far short of the potential for effectiveness of support of combatant commanders.

There are a number of critical short-falls that could best be remedied by a consolidation of functions in a unified Logistics Command to provide support to all Unified and Specified Commands. Among these short-falls to be remedied are the following:

- a. There is a profusion of horizontal layering in supply activities, including items handled by DSA, GSA, the Army and to some extent, items handled by the Marines and Navy. This horizontal layering of supply systems obscures the visibility to procuring activities of the consumption data and the demand trends of the user to an extent which seriously impairs effective supply flow. The system also provides no effective mechanism for correction of inventory imbalances within or among theaters;
- b. There is a proliferation of separate, largely incompatible Automatic Data Processing (ADP) systems, which are needlessly duplicative. Software programming for each of these is costly, and the cost of software is increasing at a much higher rate than computer hardware. With each modernization step on the many separate ADP programs, the inefficiencies and incompatibilities of the overall supply system appear to become more tightly locked in;
- c. There are significant duplications in maintenance activities, and successful efforts to integrate maintenance activities have been few and isolated;
- d. Responsibility for both traffic management and transportation of cargo for overseas distributions is divided largely by Service and transportation mode, and conflicts between activities are numerous, costly and impair effectiveness; and
- e. The fragmentation of supply (other than procurement), maintenance and transportation responsibilities precludes required overview capability of logistics activities, particularly at the level of the Unified Commands. It stimulates excessively detailed management from the Office of the Secretary of Defense in attempts to overcome excessive spans of control, critically impairs military planning for joint operations, and contributes to the potential for imbalances in allocations of resources between combatant and logistical forces.

Integration of supply, maintenance and transportation functions for the support of Unified and Specified Commands can substantially improve the effectiveness of logistics support, while at the same time achieving greater efficiency and economy. A unified vertically-oriented supply and transportation system, including maintenance, should be organized for support of all combat forces, both those overseas and those held in the United States ready for overseas deployment. With a vertical system, integrated from Continental United States through theater management, items could be moved from the United States to overseas commands without financial transactions, and as easily withdrawn in necessary redistribution actions, since supplies in the United States and all theaters, within a given supply class, would all be accounted for within the same stock fund or working capital fund.

In addition to improvements in effectiveness, efficiency and economy, a unified Logistics Command would greatly enhance the planning capability of the Unified and Specified Commanders.*

Effective logistics integration will require an advanced computerized control and information system, without which the resultant system would be that of a confederation with subdivisions so loosely connected that few of the benefits of union could be achieved. There are significant disparities among the levels of sophistication of ADP systems the Services have achieved to date. The Air Force, with experience at a relatively high level of technical sophistication, has planned a highly advanced systems concept for the 1970s. The Navy, with a wholesale control system in some ways more advanced than the system the Air Force seeks to replace, is designing an advanced logistics system. With reasonable effort, these systems can be brought together. The Army, however, is in the process of implementing a system that is in some ways less advanced than the one the Air Force seeks to replace. In developing a logistics ADP system with common elements for all Services for those functions to be shared, the first step is to stop all current development and procurement activity not necessary for support of near-term operations. In view of the practical problems connected with an integration of these logistics functions, a phased approach is clearly necessary.

II-32 The responsibility for providing supply distribution, maintenance and transportation services to the combatant forces in Unified and Specified Commands under the Strategic and Tactical Commands should be assigned to the unified Logistics Command.

II-33 The Logistics Command should be assigned the traffic management and terminal management functions now allocated to the Military Traffic management and Terminal Service (MTMTS), the Military Sea Transportation Service (MSTS) and the Theater Traffic Management agencies.

II-34 The Military Airlift Command and Military Sea Transportation Command both should be assigned to the Logistics Command.

II-35 The Logistics Command should be directed to develop, under the policy guidance of the Assistant Secretary of Defense (Telecommunications), an ADP logistics system to encompass supply distribution elements that can be shared among the Services, and all development and procurement activity toward separate ADP logistics systems not essential to support of near-term operations should be suspended.

*On creating a unified Logistics Command, see Recommendation I-4.

B. Integrated Procurement Management

In the late 1940s and early 1950s, Congressional demands for economy and the elimination of duplication were expressed by including in yearly appropriation bills provisions giving authority, and in some cases, direction to the Secretary of Defense to standardize, consolidate and eliminate duplication in logistics activities.

In World War II, the Army purchased certain items of subsistence for all Services quite successfully. Based on this experience, the Secretary of Defense, in 1951, established Single Department Procurement of selected commodities. In 1952, coding of items under the Federal Cataloging System was accelerated, which required all Military Services to use the same stock number and name for the same item, and to group items into homogeneous Federal Supply Classes.

Increasing Congressional pressures to expand Single Department Procurement to include supply as well as procurement resulted in 1955 in the Single Manager Concept which included initial warehousing and distribution, as well as procurement, for selected commodities.

An amendment to the 1958 Appropriation Act gave the Secretary of Defense authority to transfer supply and service functions among the Military Services to achieve efficiency and economy, and this authority was later included in the National Security Act by the Defense Reorganization Act of 1958.

By 1961, the Single Manager Concept had been implemented for eight commodity areas, and implementation in a ninth commodity area was in progress. The Defense Supply Agency (DSA) absorbed the management of these commodity areas when it became operational on January 1, 1962.

Conceptually, DSA was to act as manager for "common items". "Common item" does not refer to an item used by two or more of the Services, but is defined as a "class or category of items of commercial type, largely non-technical in nature, generally used throughout the military and civilian economies."

In July 1965, Item Management Coding (IMC) criteria were published, the Services were directed to make a three-year review of all items, and the burden was placed on the Services to justify not coding items for single management. Of the some one million items reviewed, the Services noted withdrawal of interest on 23 percent, and coded 58.4 percent for integrated management and 18.6 percent for Service management.

Department of Defense policy also established "Permissive Coding," by which an item can voluntarily be coded by a Military Service for integrated management even though it meets one of the ten criteria permitting Service management.

As of January 1970, DSA manages about one-half the item count in the total inventory. About 70 percent of these items are of interest to only one Service. By value, the DSA inventory of about \$3 billion represents only 13 percent of the dollar value of the total inventory.

The experience with integrated management of procurement has justified the expectations of improved efficiency and economy. Although the principle has proved

sound, problems associated with the procedures of implementation have arisen which require evaluation and correction.

The Item Management and Permissive Coding have resulted in severe "item turbulence". "Item turbulence" refers to changes to basic information connected with an item, such as stock numbers, name, manager, designation, unit price, unit issue, etc., which is required to order, turn-in, reissue, report on or otherwise transact business with reference to the item. The impact of this turbulence is illustrated by the fact that one change in Federal Stock Number (FSN) could trigger up to 2,800 changes through the Department of Defense Supply System, depending on the number of organizational units or records dealing with that item.

Item turbulence is aggravated by a number of additional factors. A major problem is created when an item is coded to DSA for integrated management, but at the time of the Effective Transfer Date (ETD), there are few or no items in the inventory available for transfer to DSA. This "Dry Pipeline" results in DSA assuming management of an item without any items in inventory available to supply customers. This circumstance arises often when the Services do not have the funds to procure the item.

Lack of technical data on items coded for DSA management adds to the problem. Long storage of technical data can make it unsuitable for photographic reproduction by DSA, as is necessary for distribution for competitive bids. In some instances, the Services do not have the required technical data as they have been procuring the items from known manufacturers or sources of supply, whereas DSA needs the technical data to purchase under competitive procurement.

In other instances, coding conflicts occur when an item managed by two or more of the Military Services is coded for integrated management by one and for retention under Service management by another.

The IMC program provides that the Services can retain management of major end items (tanks, missiles, etc.) even though they fall in a general category of materiel assigned to DSA for management. In most such cases, however, the repair parts are managed by DSA. This results in a division of management authority between the major end item, itself, and the supporting components and repair parts. The Services retain responsibility for the technical aspects of both end items and their components and parts. This involves planning, engineering development, major item production and maintenance. (The Services are charged with the responsibility for providing engineering support to DSA, which has no engineering staff capability). This division of logistic responsibility between the Services and DSA, involving such closely related and interacting functions relating to a single major piece of equipment, requires so much time for coordination that it has become a critical factor in responding adequately to needs of the forces in the field.

Some of the troublesome item transfers by permissive coding may possibly be attributable to inadequate cash balances in Stock Funds. Currently, Department of Defense policy provides for adequate cash balances, but actual cash balances have, in fact, been far less than adequate. Sufficient cash balances in stock funds are essential for effective secondary item support and to avoid disruptions of orderly procurement programs.

DSA now manages some 400,000 items coded as "non-stocked". No meaningful evaluation has been made of the impact on requisitioners of the excessive order and shipping

time for such items which are not kept in inventory. No credit is given when excess quantities of such items are turned in, a practice which should also be re-examined.

The potential for improved efficiency and effectiveness of support thoroughly justifies the incentives created by Department of Defense policy for integrated procurement. The degree of turbulence and other inhibiting factors now existing indicate that a comprehensive policy and status review are now much in order. To avoid the turbulence, migration of items between managers needs to be at a more stable pace. IMC criteria for determining item managers should be reviewed against experience, with particular attention being paid to the effect of integrated coding of repair parts for major end items which continue under Service management. Consideration should be given to the establishment of criteria for requirements for pipeline fill and standards for availability of technical data as prerequisites for changes in managership. In the review, special consideration should be given to the impact of each factor on the requisitioner.

II-36 A moratorium should be declared on Integrated Management Coding for transfers of the management of items, and a complete review be conducted to determine:

- (a) The adequacy of IMC criteria as indicated by experience with their use;
 - (b) The magnitude of impact of divided management responsibility for major end items and for the components and parts for the item;
 - (c) The number of items coded for transfers of managers with partial or dry pipelines, the relationship of "dry pipeline" item management transfers and stock fund depletion of transferers, the impact of "dry pipeline" item management transfers on requisitioners, and the feasibility of establishing pipeline fill requirements as prerequisites for item management transfers;
 - (d) The feasibility of establishing technical data availability standards for item management transfers;
 - (e) Methods of reducing conflicts of Integrated Management Coding by the several Military Services; and
 - (f) The impact on requisitioners of existing criteria by which items are coded as "non-stocked".
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CHAPTER III

MANAGEMENT AND PROCEDURES

I. GENERAL

The Department of Defense presents an unparalleled management challenge. Many factors contribute to the scope of this challenge, including: the size of the defense establishment; the variety and diversity of its activities, all of which are closely interrelated; its technological dependence; the annual authorization-appropriations cycle; the political sensitivity of its operations; the obscurity of any quantitative standards for measurement of success or failure; the diverse origin and broad sweep of its policy guidance; the internal divergencies of interests within the Department; and the variances of its objectives due to changing threats, shifting potentials for crises and fluctuating national commitments.

Management authority for the Department of Defense is not unitary. Externally, defense management authority is shared by the Congress and the President, and the internal management authority is significantly influenced by the decisions of the Congress and the methods of operation of the President.

Congress exercises its management authority through three principal types of control; statutory assignments of authority and responsibility and imposition of rules of procedure; annual authorizations of programs requiring capital outlays; and annual appropriations. Advisory participation in the Congressional decision-making process is provided through legislative hearings. Visibility of Departmental operations is obtained by Congress primarily through required reports, investigative hearings and the audit and investigation activities of the General Accounting Office (GAO). The principal instruments of Congressional control are money, manpower, equipments and facilities.

The President exercises his management authority through both informal and formal procedures. He participates directly in the decision-making process, particularly in the area of military operations. He imposes policy guidance, currently by means of National Security Decision Memoranda (NSDMs). In this process, the broad advisory participation necessary from officers of the Executive Branch is accomplished through the National Security Council machinery and the Defense Program Review Committee (DPRC). Budgetary control is exercised through the activities of the Bureau of Budget.

The effectiveness of internal management is influenced by the degree of consistency and harmony between the two external sources of authority, and the degree of consistency and harmony of internal management with external direction.

To provide a structure for internal management, decision points and thresholds of authority must be established, the participants in the decision-making process determined and designated, and provisions made to insure visibility to and of the appropriate decision makers. The effectiveness of the management depends in no small way on this structure and its synchronization with management procedures; the Department is so huge that formal management procedures are much more important than in smaller organizations.

Internal management is exercised to a large extent through control of resources, which fall into three general phases: allocation, justification, and utilization. The emphasis on the three phases of resource control has shifted significantly from time to time.

II. PLANNING, PROGRAMMING AND BUDGETING SYSTEM

Since 1961, the process for managing the allocation of resources has centered in the Planning, Programming and Budgeting System (PPBS).

The five budget categories by which funds are appropriated – military personnel, operations and maintenance, research and development, procurement and military construction – proved inadequate as management control categories to insure balance among mission-type forces. The new control process was constructed around program categories which are largely mission-oriented.

The baseline for the PPBS is the Five-Year Defense Program (FYDP), which is the aggregate of all approved programs projected in force levels for eight years, five of which reflect budget plans.

Prior to revision of the PPBS in 1969, the planning, the programming, and the program decisions which modified the FYDP were not constrained by budgetary factors (i.e., the planning was based on conceived defense needs without regard to whether sufficient resources were available for defense purposes). When the budgeting phase of the PPBS was reached, the one-year element of the FYDP was reduced to budgetary levels, and budget decisions were then fed into the FYDP with considerable distortive effect. The 1969 revision of the PPBS injected budgetary guidance into the planning phase to some extent, and fully into the programming phase.

A. Description of the Revised PPBS

The PPBS is a continuous cycle. It begins with the policy input and overall fiscal guidance from the President in the form of NSDMs. The principal planning documents are the tentative and final Strategic Concepts Memoranda (SCM) prepared by OSD, and the Joint Strategic Objectives Plan (JSOP) prepared by the Joint Chiefs of Staff. Volume I of the JSOP contains a statement of the national security objectives from the NSDMs, the military objectives derived therefrom, and military strategic concepts on a worldwide and regional basis. Volume II of JSOP contains a detailed analysis of specific forces needed to meet the threat over the succeeding five years. Cost implications are included in Volume II of JSOP, but it is not constrained by budgetary factors. (The JCS also prepares an additional planning document, the Joint Research and Development Objectives Document (JRDOD), which is not a part of the PPBS cycle.)

After the submission of Volume II of the JSOP, the Secretary of Defense issues fiscal guidance marking the transition from the planning to the programming phase of the system. The fiscal guidance provides for each of the five years a breakdown of money anticipated to be available by Military Service, and within each, a breakdown by major mission and support effort (and also "logistics guidance," or the money anticipated to be available for war reserves and production plant base).

There are two principal types of programming documents. The first is the Joint Forces Memorandum (JFM) prepared by the Joint Chiefs of Staff. This is, in essence, a rework of Volume II of the JSOP to reflect budgetary factors. It contains a force structure broken into FYDP categories, including support programs. Costs and manpower levels are furnished by the Military Services to the Joint Chiefs of Staff for the JFM. The second type programming document is the Program Objectives Memorandum (POM) prepared by each Military Service

subsequent to the submission of the JFM. For each Service the POM is a more detailed presentation of their portion of the JFM and all deviations from the JFM must be explained. The POM must contain both the rationale and risk assessment for each program.

Based on the JFM and the POMs, the Secretary of Defense makes program decisions which are published as Program Decision Memoranda (PDMs), which in the initial cycle of the revised PPBS structure, constitute and in subsequent cycles, modify the FYDP.

When all PDMs are issued, the PPBS moves from the programming to the budgeting phase. Each of the Military Services and Defense Agencies submits a budget estimate based on the PDMs. After a review, the Secretary of Defense issues a series of Program/Budget Decisions (PBDs) upon the basis of which the Services prepare their annual budgets in budgetary categories.

The PPBS is an orderly and systematic procedure and a useful tool, but it is not a substitute for managerial judgment.

B. Significant Features of PPBS

The 1969 revision of the PPBS offers two principal potential improvements. It constrains the planning cycle with strategic and general fiscal guidance, and it can reduce the distortive impact of budgeting on the FYDP by moving the impact of budgetary constraints from the interface of programming and budgeting back to the interface of planning and programming, where time pressures created by budget urgencies do not so restrict deliberative risk assessments. Second, the revision provides the Joint Chiefs of Staff, through the JFM, and the Military Services, through the POMs, the opportunity for more initiative in force planning.

There are several other particularly significant factors relevant to the revised PPBS.

It tends to put more responsibility on the Joint Chiefs of Staff through their preparation of the JFM. In the past, the Joint Chiefs of Staff have not been able to achieve the resolution of interservice differences on force issues which is essential to the structuring of an effective JFM. Nor has the Joint Staff demonstrated the analytical capabilities essential for reviewing the Service inputs to the JFM on costs and manpower levels.

The revision lengthens the PPBS cycle, which potentially can inhibit quick responsiveness to changing threats and other circumstances. The first cycle of the new PPBS began in the fall of 1969 and is scheduled to culminate in an annual budget submission to Congress in January 1971, concerning funding for the Fiscal Year beginning 1 July 1971. The planning cycle is thus begun some twenty-one months prior to the immediate period to which the planning is directed. Compressing the PPBS cycle would improve planning and programming effectiveness, and minimize the number of reprogramming actions required.

Neither the former nor the revised PPBS provides an effective mechanism for inputs to programming from the Unified and Specified Commands to the Secretary of Defense. This is a major deficiency. They are assigned specific missions to fulfill. They are delegated responsibility for initial contingency planning to fulfill those missions. The Unified Commands can provide useful recommendations on force structure and operations capability if given the procedural opportunity, particularly when the recommendations are coordinated through a Tactical Command. Such recommendations would provide, at the

very least, a check on the JFM, and could possibly present a spectrum of feasible alternatives to the JFM, as well as to the JRDOD.

The imposition of fiscal constraints on the PPBS has a potential for increasing the rigidity which the PPBS tends to impose. Rigidity, which results from the combination of fiscal restraints in programming and from declining budgets, reduces the flexibility to exploit technological advances or to respond to changes in the threat.

The PPBS, although more simplified in the revised form, still is a complicated process. The preparation and review of the extensively detailed documents require a major manpower commitment. Most of the data processed and fed into the submissions are handled by automatic data processing. Consequently, any change in format or categories of submissions complicates the process and adds both to its cost and the potential for errors. Every effort should be made to stabilize the formats throughout the process. In this regard, there is a difference between the fiscal guidance categories and the FYDP categories in the initial cycle. Indeed, no satisfactory "crosswalk" or computer conversion program between the FYDP format and the OSD prescribed Land Force Classification System (LFCS) has yet been developed, and the fiscal guidance categories coincide with neither. Furthermore, the fiscal guidance categories are not prescribed by the PPBS procedure, which increases the likelihood of changes from year to year. Conversion programs between varying categories are both difficult and expensive to develop, and requirements for new ones should not be imposed lightly.

A major complication and expense is occasioned by the necessity of constructing a "crosswalk" between program categories essential for management, and the budget categories by which Congress authorizes and appropriates. Much confusion and expense could be avoided by an approach which did not require use of budget categories, and the elimination of the budget categories would not in any way adversely affect either the management or the visibility of Department of Defense operations.

Although the PPBS is the major planning, programming and budgeting procedure in the Department, it has more practical use as a budgeting device than as a planning and programming procedure. Many major programs result from the development of new weapons systems, which are approved largely independently of the PPBS, primarily through the Development Concept Paper (DCP) procedure.* The PPBS does not contribute significantly to the decision-making process for consideration of programs which center on major weapons systems. It does array a projection of estimated costs on such programs after their approval for development. The absence of a tie-in to the PPBS of the decision-making process on research and on individual weapon system developments is a major weakness.

C. Description of a Proposed PPBS

The Planning, Programming and Budgeting System (PPBS) should be modified to provide a logical and workable merger of the currently independent programs which involve Research Objectives (ROs), Operational Capability Objectives (OCOs) and their validation, development plans, and Development Concept Papers (DCPs). In the steps of the PPBS cycle outlined below, the development, review and approval of these documents have been added.

*See Section IV in this Chapter for a discussion of the DCP.

For clarity it should be noted that the cited submittals to the Deputy Secretaries of Defense actually envision evaluation by the Assistant Secretaries (Research and Advanced Technology), (Engineering Development), (Operational Requirements) and (Program and Force Analysis), joint review and evaluation by the Deputy Secretaries, and final review and approval by the Secretary. The Assistant Secretary of Defense (Operational Requirements) would be responsible for this coordination.

The proposed Planning, Programming and Budgeting System would include procedural guidance for: (1) processing changes to the approved resources of the Five-Year Defense Program; (2) submission, analysis, review and approval of new and revised programs and budgets; (3) maintenance and updating of the Five-Year Defense Program structure; and (4) incorporation of the development program decision process of Operational Capability Objectives and Development Concept Papers.

The calendar schedules fixing the time periods and deadlines for each step in the procedure would continue to be established by the Secretary of Defense annually by memorandum after experience is gained through the actual use of the system.

The major steps in the proposed PPBS cycle, with the additions underlined are as follows:

(1) The cycle would begin with the preparation by the Joint Chiefs of Staff of Volume I (Strategy) of the Joint Strategic Objectives Plan (JSOP) and the proposed Research Objectives (ROs) statement by the Advanced Research Projects Agency. These documents would be submitted to the Deputy Secretaries of Defense. Volume I of the JSOP should continue to contain the statement of the national security objectives and the military objectives derived therefrom, and to include military strategic concepts and objectives on a worldwide and a regional basis. The national security objectives are based on decisions of the President as expressed in National Security Council Decision Memoranda (NSDMs). The ROs would indicate the areas in which the technological base should be advanced for the continuing support of the Defense posture, and would propose an order of priorities.

(2) After the review of Volume I of the JSOP, the Secretary of Defense would issue to the Joint Chiefs of Staff, the Military Services, the Defense Agencies, and to the Unified Commands, a Strategic Concepts Memorandum (SCM) containing the general strategic concepts and guidelines to be used by all participants in the PPBS. The SCM would first be issued in draft form and, after comment by all recipients, finalized and reissued.

(3) Then the Secretary of Defense would issue a preliminary fiscal guidance to the Joint Chiefs of Staff, the Military Departments, and the Unified Commands for each of the succeeding five years for their comments.

(4) Following this, the Joint Chiefs of Staff would submit Volume II of the JSOP to the Deputy Secretaries of Defense, and the Strategic, Tactical and Logistics Commands would submit proposed/revised Operational Capability Objectives (OCOs). Volume II of the JSOP consists of a detailed analysis of the specific forces needed to meet the expected threat over the succeeding five years, in the opinion of the Joint Chiefs of Staff. Volume II of the JSOP is not fiscally constrained - that is, it is not limited by fiscal guidance, but cost implications of the recommended forces are included. This volume of the JSOP highlights those recommendations which require decisions in the current calendar year. The OCOs would represent an assessment by the Unified Commands of the materiel resources they need to

support or perform their assigned missions.

(5) Next, the Secretary would issue to the Joint Chiefs and the Military Departments a tentative fiscal guidance broken down by Military Departments and by major mission and support effort within the Military Departments.

(6) After receiving responses from the Joint Chiefs of Staff (JCS) and the Services on the tentative fiscal guidance, the fiscal guidance would be issued. From this point, all submissions under PPBS would be "fiscally constrained." At this time, the ROs would be finalized and approved, and the selected OCOs would be validated and assigned priorities.

(7) Then, the Joint Chiefs of Staff would prepare and submit to the Deputy Secretaries the Joint Force Memorandum (JFM), which contains the Joint Chiefs' recommended force levels and support programs, similar to that of Volume II of the JSOP, but within the parameters of the fiscal guidance. The JFM includes program costs and manpower requirements furnished to the JCS by the Military Departments.

(8) Next, the Military Departments would submit to the Deputy Secretaries their Program Objectives Memorandum (POM) and development plans for the validated OCOs. The POMs are a more detailed presentation by the Services of their portion of the JFM, presented, as in the JFM, in the format of the FYDP categories, and costed in detail. Supporting rationale must be included for each program, as must the risk assessment. Variances of the POMs from the JFM must be identified and costed, and must stay within the established guidelines. Concurrent with the submission of the POMs by the Military Departments, the Unified Commands would submit to the Deputy Secretaries their Command Program Memoranda (CPMs), which would contain recommended changes in that portion of the forces proposed in the JFM which are assigned to the submitting Unified Command. Each CPM would indicate priorities for a percentage or dollar amount of increase and a percentage or dollar amount of decrease in assigned forces. The development plans for the validated OCOs would represent the assigned Military Department's approach to satisfy the OCO and include a proposed development concept paper (DCP).

(9) After review and evaluation of the JFM, the POM, the CPMs and the development plans, the Secretary issues draft decision papers for comment, and after review of the comments, amended Program Decision Memoranda (PDM) and approved DCPs will be issued. These DPMs and DCPs will constitute for the first cycle, and modify thereafter, the FYDP.

(10) Finally, the Military Departments and Agencies will submit to the Deputy Secretaries their budget estimates based on the amended PDMs and the approved DCPs. After review of the budget estimates, the Secretary of Defense would publish a series of Program/Budget Decisions (PBDs) addressing specific budgetary decisions. A procedure and schedule is established for conferences or reclamas to the PBDs. Thereafter, the budget is shaped by review in the Office of the Secretary and in the Bureau of the Budget, with final Presidential decisions on still unresolved issues made prior to submission of the budget to Congress in late January.

III-1 The PPBS should be modified to include the formulation of Research Objectives

(ROs) by the Advanced Research Projects Agency (ARPA), the preparation and submission of Operational Capability Objectives (OCOs) and Command Program Memoranda (CPMs) by the major Unified Commands, and development plans and Development Concept Papers (DCP) submitted by the Military Departments.

III-2 The time prescribed annually for the PPBS cycle should be constricted after the first cycle and the new FYDP is completed in order to bring the planning phase nearer in time to the period of operations.

III-3 The various categories used in and in connection with the PPBS should be made to coincide as nearly as practical and be stabilized.

III-4 The fiscal guidance should prescribe a declining limit for each out year in the Research and Development and in the Procurement program categories in order to preserve a flexibility in the FYDP to exploit developing technology and to program to meet unanticipated threats.

III-5 Every effort should be made to obtain agreement by the Congress to accept defense budgets and to appropriate in program rather than existing budget categories.

III-6 The Joint Staff should be augmented with a complement of civilian analysts, in order to enhance its analytical capability generally, and to improve its capability to evaluate Service submissions of cost and manpower levels for the JFM in particular.

D. PPBS and Systems Analysis Techniques

The role of the Office of the Assistant Secretary of Defense (Systems Analysis) is inextricably interwoven with the Planning, Programming and Budgeting System (PPBS). Although the Assistant Secretary of Defense (Comptroller) is charged with overall responsibility for the PPBS, and although, in practice, the PPBS is far more nearly a budgetary, rather than a planning or programming exercise, the Systems Analysis office has been and is more involved in the planning and programming phases of PPBS than the Comptroller.

The Systems Analysis Office has proved to be a controversial organization. Fundamentally, most of the controversy centers around allegations that it initiates, rather than reviews, force structures in the planning and programming phases of the PPBS, and in effect, has made, rather than advised on decisions.

Prior to the 1969 revision of the PPBS, the Systems Analysis Office prepared the Draft Presidential Memoranda (DPMs) which constituted the baseline documents for force programming in the Department. The DPMs were in theory predicated on the Joint Strategic Objectives Plan (JSOP) prepared by the Joint Chiefs of Staff (JCS), but the JSOP was prepared without any fiscal constraints and with no limiting mission guidance to the JCS, and, as a consequence, the JSOP forces priced out far beyond the level of resources available to the Department. In effect, therefore, the DPMs prepared by the Systems Analysis Office were the initial force structure plans for the Department.

Under the revised PPBS, both fiscal and strategic (mission) guidance is provided the JCS, so that presumably, the Joint Force Memorandum, which, in essence, replaces the DPMs, will provide the initial force structure planning and the baseline document for Department programming.

The Systems Analysis Office performs the staff analysis for the Secretary of Defense which provides the basis for the fiscal guidance, and to an extent, this requires some force planning, particularly in the initial cycle of the revised PPBS.

An effective analytical capability is an essential tool for successful management, particularly in an organization such as the Department of Defense in which management issues involve large numbers and types of factors. It should exist at all managerial levels of the Department.

The techniques of systems analysis should not be confused with particular functional assignments in which these techniques are the primary tool, such as force and program structuring and review, nor should the merits of the techniques be confused with controversial functional assignments or functional usurpations by those using systems analysis techniques.

Some of the confusion could be eliminated by giving the Office of Assistant Secretary of Defense (Systems Analysis) (ASD(SA)) a title which describes the functional responsibilities assigned to it, rather than one of the methods it uses in the performance of its functions.* Currently, the Office of ASD(SA) is assigned major responsibilities for review and analysis of force structures and programs. This is an essential task, and must be well performed if the management by the Secretary of Defense is to be effective. Every effort should be made to enhance the capabilities of those assigned this staff responsibility, which requires the application of a broad range of disciplinary skills, maturity born of experience and firm responsible direction.

*See Recommendation I-6.

III-7 Analytical capability should be strengthened throughout the Department, and particularly in the Office of the Secretary of Defense.

III. LOGISTICS GUIDANCE

Although the overall fiscal guidance is unique to the revised PPBS, logistics guidance was provided under the old and revised PPBS. A Logistics Guidance Memorandum (LGM) is published with the tentative fiscal guidance and again with the fiscal guidance in final form on March 15. The LGM under the revised PPBS more clearly reflects the imposition of fiscal constraints.

The LGM (formerly called the Defense Guidance Memoranda (DGMs) on Logistics) provides the guidance for planning materiel support, which under the revised PPBS, is submitted as an integral part of the service POMs.

The logistics guidance deals both with materiel inventories for emergencies and current operation, and with production base planning.

In the past, there has often been a significant and apparently irreconcilable difference between the war reserve objectives and the production base planning objectives, on the one hand, and annual logistics guidance, on the other. These discrepancies do not appear to have been remedied. The preparation of stable objectives cannot be achieved without a significant effort to analyze the many factors relating to the problem.

OSD has not analyzed these problems, which range from ammunition consumption rates to the usefulness of existing production base plants. New problems, such as Army ammunition which has a shelf life, have not been sufficiently analyzed to determine their effect on existing planning factors.

Deficiencies in the types of resources covered by the LGM are the least visible element of force readiness. They involve significant expenditures, however, and being less visible are potentially the most likely area for "economizing" by the Services when faced with the pinch of fiscal constraints. These factors in combination justify a high priority for increased attention to establishment of meaningful and relevant objectives for materiel support and production base planning, as well as for effective program reviews of these areas.

III-8 The factors bearing on war reserve stock levels and production base plants should be analyzed and evaluated in order to develop meaningful policy objectives which can be compatible with logistics guidance.

IV. DEVELOPMENT CONCEPT PAPER

A second major process by which allocation of resources is managed is the Development

Concept Paper (DCP), although the DCP is also used for management in the utilization phase.

The DCP was initiated in an attempt to provide a more complete and comprehensive, yet manageable, display of relevant information to the Secretary of Defense on important issues requiring decisions for major developments. Its preparation and approval is now a precondition to commencement of a major development, of which there are about 80 at any given time. (A major program is one which involves more than \$100 million for production or more than \$25 million for research, development, test and evaluation.)

The DCP is limited in length to 20 pages. It is required to present the objectives of the program, the issues, the driving force, or threat, alternatives, test and evaluation, the risks, the pros and cons of alternatives, the resource needs, schedules, management plans, security considerations, thresholds and recommendations. It also prescribes the time when an updated DCP will be submitted.

Many items contained in the DCP are required to be agreed upon, or based on consensus. Among these items are the objectives, the issues, and the alternatives. All offices having cognizance must also agree that the pros and cons for each alternative are fully and fairly stated. Prior to consideration by the Secretary of Defense for decision, the appropriate officers (Chief of Service, Secretary of Military Department, Director, Defense Research and Engineering, the Assistant Secretary of Defense (Installations and Logistics) and the Assistant Secretary of Defense (Comptroller), and, in cases of developments for more than one service, the Joint Chiefs of Staff, and the Assistant Secretary of Defense (Systems Analysis) (on the initial DCP) must sign the DCP and indicate the alternative preferred. The Secretary's decision is indicated by designation of the selected alternative and his signature.

The DCP is updated and reconsidered from time to time, but usually the initial approval is just prior to entering the engineering development phase, and formal approval prior to entering the production phase.

Recently, the DCP has included the designation of the Program Manager and the establishment of his reporting lines and chain of authority. This information is specified in the management plan.

The Services have the basic incentives to see a DCP prepared, but most of the DCPs now existing were produced by personnel in the Office of the Director of Defense Research and Engineering.

DCPs vary in quality. There is not sufficient experience with the process to evaluate the impact on development programs, and, indeed, DCPs still do not exist for all major development programs.

The DCP has two unique features. First, it is a "discipline" document, with prescribed format and limited length. It is an attempt to summarize all the significant considerations bearing on the decision to be made. Despite the stated requirement, all cognizant offices do not always concur in those portions of the DCP for which a degree of unanimity is specified. Consequently, the format of the DCP has a potential for submerging differences on the assumptions which underlie the alternatives presented. This presents a risk for the decision maker.

Second, the DCP appears to have circumvented, to a large degree, the many pressures for concurrence and unanimity among advisors on alternative approaches to developments, thereby preserving options for the Secretary's decision. This is a major accomplishment.

Although DCPs have not yet been prepared on all major systems, and some of those which have been prepared appear mediocre, an attempt is being made to use the DCP for areas of research and development which do not fall in the category of major systems. Approximately 50 DCP-type papers are under way for areas of research and development other than major systems. None has been completed.

When applied to major systems, the DCP has many advantages as a management tool. For general effective use in this area, however, it will require the acquisition and training of personnel in the preparation of DCPs, in order to attain an acceptable standard of quality, which does not now appear to exist. The DCP will continue to be only a tool for management and its limitations should be recognized. Potentially, it could foster an ad hoc management approach for each major development, which could obscure the necessity for structuring and maintaining an overall organization which is effective and efficient. It can also foster a tendency to establish a direct reporting relationship between Program Managers and senior decision makers in OSD in each individual case, that, in the aggregate, can overtax the feasible span of control of the senior decision makers.

The application of the DCP format and procedure to research and development areas beyond major system developments portends a degree and span of centralized control by Defense Research and Engineering which is infeasible for efficient management. Major developments have such significant cost consequences that decisions must be reserved to the Secretary of Defense; decisions on lesser programs can more safely be delegated if organization is structured so as to permit precise designation of accountability and maintenance of visibility. Program approval and review can be managed through effective use of the PPBS. Extension of the DCP process beyond major system developments could seriously overlap the management potential of the PPBS and result not only in needless duplication, but also in overmanagement at top levels.

III-9 Increased emphasis should be placed on identifying, acquiring and training personnel who have the capability to prepare Development Concept Papers for major developments.

III-10 The Development Concept Paper should not be employed as a management tool for areas of research and development other than major systems developments.

V. DEFENSE DIRECTIVES/GUIDANCE SYSTEM AND MANAGEMENT INFORMATION REPORTS

Being a large and structured organization, the Department of Defense necessarily has

developed an elaborate system of directives through which to promulgate standing policies and procedures. The Department is so big and dispersed, that only through the formalized procedural documents system can policy be effectively communicated throughout the structural organization.

The established system for communicating official guidance throughout the Department is adequate as established, but the implementation of the process leaves much to be desired.

New policies which are only pronounced orally or transmitted through unofficial memoranda may not reach the implementation levels of the organizational elements. There is a need for substantially increased awareness of the necessity of promulgating policy and procedures through the formally established system.

The Office of the Secretary of Defense employs a system of Directives and Instructions to promulgate policies and procedures. This Directives and Instructions system has not been reviewed and codified in many years, with the result that many Directives and Instructions overlap and are inconsistent, contradictory, and irrelevant to current circumstances. The quantity of these documents has increased significantly over the years, and there appears to be no mechanism by which the policy changes contained in new Directives and Instructions are incorporated in previous documents through modifications or revisions. Nor is there a provision for systematically reviewing and consolidating Directives and Instructions. As a consequence, the Department's Directives and Instructions are not adequate to assure that implementation actions are consistent with policy.

The Department of Defense is also deluged with reports.* Requirements for reports are initiated by almost all elements of all echelons of the Department. So great is the proliferation of reporting requirements that it would be a major undertaking just to obtain a total inventory. These reporting requirements fall in all categories - recurring reports, courtesy reports, external reports, narrative reports, automated reports and manual reports.

Despite the general recognition within the Department that reporting requirements have increased to unmanageable proportions, efforts to reduce and control such requirements have been mostly ineffective.

In 1969, the Office of the Assistant Secretary of Defense (Comptroller) inventoried the various management information products received and prepared by OSD. This inventory included approximately 1,200 reports.

An inventory compiled by the Navy in 1969 of recurring reports required by Washington Navy Headquarters Organizations revealed a total of 1,417 requirements, which generated 1,461,607 submissions annually requiring 5,439 man-years to prepare. Duplications of substantive information abound, although frequently couched in differing formats. There is little evidence to indicate that estimates of costs of preparation, handling and review are prepared and considered prior to imposition of new reports requirements.

Department of Defense Directives and Instructions prescribe the responsibility for reports control, the criteria for establishing reports requirements, the standardization of

*See the Management System Section in Chapter II for additional comments.

reporting forms, the procedure for obtaining authority for a new reporting requirement and the registration and numbering of reports requirements.

The criteria for establishing reporting requirements are generally adequate. They provide, in part, that:

a. The data to be developed must meet a clearly defined need:

(1) For management needs of the Department, the cost of developing the data as well as the cost of compiling and utilizing them after receipt should be commensurate with the expected value of the results; the detail required should be directly related to the level of management responsibility at which the request is initiated; the necessary resources to process the data and take action should be available; and the frequency of reporting should be minimal.

(2) In determining the response to be made when the Department is requested to supply information to others, the cost of developing the data should be commensurate with the degree of public interest involved.

b. Requests must be designed to permit respondents to meet data needs as efficiently as possible. Whenever possible, they should provide for the use of available summary totals, the use of data already included on magnetic tapes or punch cards, and the employment of appropriate sampling techniques.

c. Unnecessary duplication must be avoided.

Although intensive one-time efforts occur from time to time intended to reduce and control reporting requirements, they are at best fragmented and temporary in effect.

Several principal factors appear to be responsible for the failure of efforts to control reporting requirements effectively.

Numerous exceptions are made to the generally adequate criteria and review process prescribed by the Department Instructions for reporting requirements. The exceptions include reports required by the Assistant Secretary of Defense (International Security Affairs) and the Directors of the Defense Supply Agency and the Defense Communications Agency, if the reports are "operational" in nature. In addition, one-time requests for statistics, data to support the PPBS process, and status or progress reports are exempted.

Most crucial to the failures of control efforts is the level at which responsibility and authority for reports control is vested. In OSD, the ASD (Comptroller) is charged with the central responsibility within the Department, and he in turn has delegated the responsibility to the Directorate for Information Control, which reports to the Deputy Assistant Secretary of Defense (Systems Policy and Information). The Director with the immediate responsibility is in an ineffectual position to prevent the various ASDs from establishing such reporting requirements as they, or their Deputies and Directors acting in their name, consider necessary, or even "nice information to know".

Similar situations exist in the Services. In the Navy, for example, the responsibility for developing and publishing methods and standards for reports management is vested in the Naval Records Management Branch (NRMB) of the Organizational and Administrative

Management Division under the Assistant Vice Chief of Naval Operations, Director of Naval Administration. This is hardly an organizational vantage point from which to exercise control of a Department-wide proliferation of reporting requirements. Even worse, the authority of NRMB does not extend to ADP generated reports, jurisdiction over which is claimed by numerous sources, nor to the some 2,000 automated reports in Bureau of Personnel.

Not only are controls for establishment of control systems and reporting requirements generally ineffective, but there is also no mechanism for terminating systems or reports no longer needed or used.

An additional problem in the Department's Directives and Instructions system concerns the charters for the offices of Assistant Secretaries, Deputy Assistant Secretaries and Directors which are published within this system. These charter documents are too often prepared in broad general terms, approved without serious review. This results in many of the present charters being of improper scope or lacking specificity in delineation of the assigned responsibility, and creates jurisdictional questions regarding the overlaps. One office should be assigned the responsibility for assuring that all charters are of proper scope and coordinated and are in accordance with the assigned responsibility of the office(s).

III-11 The Secretary of Defense should establish a small staff function within the Coordinating Group reporting to him and assign it the responsibility of effecting both a major improvement and reduction in the control and information needed for management within the Defense Department, and in turn, of its Defense contractors. This should be done by specifying what is required, not dictating how to manage. An objective should be established to further enable the Department components and industry to evolve a more stable management environment by restricting changes in control and report requirements to the minimum basic requirements. The Department's Directives and Instructions should be codified through consolidation, revision and restatement. In addition, criteria for imposition of control systems and reporting requirements should be expanded to require a statement of need, benefit, estimated cost (of preparation, handling and review) and why existing systems and reports do not satisfy the need. Periodic reviews should also be required for the purpose of confirming the continuing need for the controls and information required. In addition, all organization charters of the Office of the Secretary of Defense should be reviewed to assure that they were properly defined and coordinated and were in accordance with the responsibilities assigned to the office(s).

III-12 Similar small staff groups should be constituted in the immediate offices of the Military Department Secretaries and the Chairman of the Joint Chiefs of Staff.

III-13 Policy makers in the Department of Defense should be acutely aware of the necessity of using formal communications channels for promulgation of policies and procedures.

VI. SELECTED ACQUISITION REPORT

The Selected Acquisition Report (SAR) system is a management tool for reporting in detail the original and current estimates of program costs, schedule and performance to top management, and for measuring changes in these factors. The SAR is applied to major development systems. Its application has extended from about six programs in January 1969, to some fifty-six programs in January 1970. Originally intended as an internal management tool, it is now used on thirty-four systems for reporting to Congress. SARs are submitted quarterly.

Efforts are in progress to collect actual contractor costs through the Bureau of the Budget approved Cost Performance Report, to be used in connection with SARs. To date, efforts to collect accurate data for the SARs have reportedly not been very successful.

The basic approach to the SAR is the establishment of a baseline of estimated costs, schedules and technical performance, and the subsequent measurement of the present status against this baseline. Unfortunately, both in concept and in actual practice, baseline reporting in the SAR has led to distorted and unreal use of figures, and a misplacement of management emphasis.*

Successfully predicting the course of development of a new weapon system is uncertain at best. The long period of time involved introduces unpredictable changes, as outside events and circumstances shift during the five to nine years it usually takes to acquire a new weapon. The development process itself contains hidden unknowns. The original estimates of cost, schedule and technical performance of a weapon system can be made with considerable skill and with total honesty, but they remain only estimates, the worth of which can be determined only by the future unfolding of events. The SARs tend to treat the original estimates as accurate predictions and to measure subsequent events in the development against the standard of the original estimates. There are two serious consequences of this procedure.

Perhaps the most serious consequence of the present SAR system is the tendency to divert attention from the important objectives of the weapon system and focus it on the wrong issues. The overwhelming concentration now appears to be on maintenance of the costs and schedule within the original estimate. Concern with the quality of the weapon system and its ability to perform an essential mission are not presented in the SAR. Management based on the SAR is susceptible to permitting excellence in a weapon system to be equated to remaining within the originally estimated cost and schedule, and failure to be equated to cost growth or schedule slippage.

Inhibition against change is the second serious consequence of the present SAR system. Attention is sharply focused on minute changes in cost and schedule, both in the Department of Defense and in the Congress. The SAR report contains detailed explanation of any deviation from the original estimate. These explanations in turn generate further detailed examination of the deviations by the Department and especially by the Congress. All of this has led to an understandable but nonetheless undesirable rigidity on the part of the project manager to stay as close as possible to the cost and schedule as originally

*See Cost Estimating Section in Chapter II.

estimated. Careful management of cost, schedule, and technical performance is obviously a highly desirable feature in acquiring new weapon systems. The SARs, however, tend to distort this desired feature into inflexible management and a tendency to regard any change as inherently bad. Change, instead, should be regarded as a desirable feature permitting the flexibility needed to adapt to changing circumstances and to alter the program when the originally estimated baseline has been proven to be in error in the light of later experience.

In summary, the SAR approach ascribes an importance and prophetic accuracy to estimates that simply do not exist. Estimates must be recognized for what they often are - educated guesses as to what the future holds. The SAR has tended to shift the objective from that of producing the best possible weapon to that of maintaining a set cost and schedule regardless of what experience and later events show to have been the wisest course.*

III-14 The Selected Acquisition Reports in their present formats should no longer be used as management tools.

VII. THE JOINT CHIEFS OF STAFF DECISION-MAKING PROCESS

The decision-making process of the Joint Chiefs of Staff (JCS) is highly formalized. It is a system based not only on coordination with, but also on concurrence by, the Military Services. The Flimsy-Buff-Green System (so called because the first draft was originally on onion skin, the second on buff-colored paper and the third on green paper) is a negotiation mechanism designed to exploit every opportunity for compromise and resolution of disagreement.

A JCS action may be initiated by the Secretary of Defense, the Deputy Secretary of Defense, an Assistant Secretary of Defense, a Unified or Specified Command, a Military Service, the Chairman of the Joint Chiefs of Staff, or the Director of the Joint Staff.

A normal JCS action -- not involving a study -- takes about three weeks to process.

An action officer from the Joint Staff is appointed for each action. His immediate task, after receipt of a directive, is the preparation of a Flimsy, the purpose of which is to develop an approach to the problem and to resolve as many divergencies of view as possible before the formal phases of the process are entered. The action officer may either write the Flimsy and send it to the other Joint Staff and Military Service action officers for comment, or he may call a meeting of such action officers to discuss the problem before writing the Flimsy himself, or may request submissions from the other action officers.

Once prepared, the Flimsy must be sent to the other action officers, after which a

*See Recommendation II-13.

period of 24 hours must be permitted to elapse before the scheduling of a meeting of the action officers. After all differences are resolved among the action officers, the paper becomes Buff.

The Buff must first be coordinated with the Joint Staff Agencies, and changes by these Agencies are published as an appendix to the Buff report. The Buff is then forwarded to the Military Services where it receives wide circulation and the attention of more senior officers, the "planners". The Joint Staff action officer is responsible for the Buff's coordination and if there are no dissents by the Military Service "planners", the paper moves to the next phase and turns Green. However, if any Service dissents (a dissenting Service comment is called a "Purple"), the dissent must be circulated to all the Military Services, and unless all concur and the differences are resolved, a "planners' meeting" must be scheduled. The "planners' meeting" is at the senior Colonel level and is chaired by the Joint Staff "planner," usually a Brigadier General. The Joint Staff action officer having the initial responsibility may attend this meeting, but may not participate unless specifically requested by the Chairman. If differences can be resolved at this level, the paper is rewritten and the Buff turns Green. Where differences cannot be resolved, the dissenting Military Services prepare formal statements of nonconcurrence which are attached to the paper. The Joint Staff action officer who originated the report must then prepare an originator's consideration of the nonconcurrence(s) which is also attached, and the resultant package becomes a formal, numbered JCS green paper.

At this point, the Chairman of the Joint Chiefs of Staff, or the Director of the Joint Staff, may request a briefing, and when changes are suggested by either, they too are appended to the Green. The Green then goes to the Operations Deputies (which consist of the Director of the Joint Staff, the Deputy Chief of Staff for Military Operations of the Army, the Deputy Chief of Staff for Plans and Operations of the Air Force, and the Deputy Chief of Naval Operations (Plans and Policies) of the Navy). If, when the Operations Deputies consider the paper, they can resolve the disagreement, they approve it and remove it from the Joint Chiefs of Staff agenda; and such agreement constitutes approval by the Joint Chiefs of Staff, unless the Operations Deputies consider the subject of the paper to be one of major importance, in which case they may send it to the Joint Chiefs of Staff. If agreement is not reached, the subject goes to the Joint Chiefs of Staff. The Joint Chiefs of Staff themselves may approve a report as written, approve modifications, return a report for rewrite by the Joint Staff and the Military Service staff planners, or disagree and forward it to the Secretary of Defense. In the latter case, the Chairman of the Joint Chiefs of Staff customarily prepares a covering memorandum explaining the nature of the disagreement and, perhaps, his own view.

Several procedures are authorized to expedite the process in certain cases.

Under the standard procedure described above, the Buff phase may be omitted and the Flimsy processed directly to a Green if (1) there are no substantive issues in the report, and (2) the report is urgently required.

Memorandum of Policy 97 (PM 97) permits actions taken on JCS matters by the Joint Staff to become decisions and to be implemented, provided that (1) actions are unanimously concurred in by the Services and the Directors of the pertinent Joint Staff Divisions, and (2) during the five days following submission of the report to the Joint Chiefs of Staff, no member of the Joint Chiefs nor the Director of the Joint Staff requests consideration of the matter by the Chiefs. If all involved agree, the report is not scheduled

for an agenda, but is instead turned Green, with the cover carrying a date on which the report will automatically become a decision. If, prior to this date, a request for consideration should be made, the report will be put on an agenda.

On a matter of urgency which is not sufficiently substantive to warrant consideration of the Joint Chiefs of Staff, a phone vote may be employed. At the time of the vote on the Buff, the Services may indicate their willingness to use a phone vote instead of a formal meeting, and if there are no nonconcurrences during the phone vote, the report becomes a decision.

Memorandum of Policy 133 (PM 133) authorizes the Chairman of the Joint Chiefs of Staff to take actions for the Joint Chiefs of Staff and to inform them on (1) matters involving operations of the forces where a decision is urgent and time does not permit formal consultation with the Chiefs; (2) matters on which Joint Chiefs of Staff policy, plans, procedures, or guidance has been previously established; (3) matters on which the "corporate" views of the Joint Chiefs of Staff on a similar problem are known to the Chairman of the Joint Chiefs of Staff; and (4) matters not important enough for Joint Chiefs of Staff consultation. PM 133 also authorizes the Directors of Divisions of the Joint Staff to issue instructions in the name of the Joint Chiefs of Staff which are in accord with Joint Chiefs of Staff approved plans, policies, and procedures.

While a majority of the decisions made by the Joint Chiefs of Staff employs one of the alternate decision methods, contentious issues follow the Flimsy-Buff-Green route. The use of the PM 133 alternative reached a peak in 1966, and has since steadily declined in both absolute number of issues and as a percentage of total issues.

The Flimsy-Buff-Green procedure is ponderous and slow, but its most serious deficiency is the incentive created for unanimity, compromise and mutual accommodation of the views of the Military Services. So strong are the pressures for unanimity that in 1969, the Joint Chiefs of Staff were unanimous on all but eight-tenths of one percent of the issues considered, and in 1966, 1967 and 1968, the Joint Chiefs of Staff split on only two-tenths of one percent of the issues considered.

The process militates against the likelihood of the Joint Chiefs of Staff clearly facing-up to difficult and potentially divisive issues. The repetitious, committee-type negotiations tend to reduce issues to a level of compromise which will either avoid the potential conflicts or substitute a solution that can be accepted on a quid-pro-quo basis.

Lost in the process is the advantage of a joint staff, which, ideally, should be able to provide a more national viewpoint than staffs which are Service-oriented. This is because the procedure injects the joint participant into the process as little more than a coordinator of the views of the several Services.

III-15 *The Flimsy-Buff-Green decision-making process of the Joint Chiefs of Staff should be eliminated.*

 III-16 A decision-making process for the JCS should be established on the pattern of the Development Concept Paper (DCP). Inputs should be requested from the Military Departments, as required, only for the initial draft of the position paper, and the Military Services should participate in no other way in the internal decision-making process of the JCS. The draft position paper should contain all known feasible alternatives; and each level in the process should be required to review for quality and sufficiency, and indicate by signature and designation the recommended alternative, all to the end that fidelity to the original issue be maintained and the extraneous pressures for unanimity be reduced.

VIII. ACCOUNTING PROCEDURES

The accounting methods of the Department of Defense have traditionally reflected cash flow and commitments, which have sufficed for management needs. There have been increasing pressures for a change to accrual accounting methods in the Department.

Accrual accounting is more costly, and with the exception of a few special cases, provides very little benefit in a non-business organization.

Those activities such as the Military Airlift Command, which operate on a working capital fund and which allocate costs to establish a charge rate or tariff for services, should use forms of accrual accounting.

 III-17 Accrual accounting systems in the Department of Defense should be confined to those Service activities which operate under stock funds or industrial funds, and which are required to establish service charges which reflect total costs.

IX. CONTRACT AUDIT, INTERNAL AUDIT AND INSPECTIONS

On April 30, 1970, the Department of Defense had seven separate audit organizations with a total complement of 844 military and 5,688 civilian personnel and annual budgeted expenditures totaling over \$90 million. These organizations and their personnel were as follows:

INTERNAL

	Civilian	Military
1. OSD - Director for Audit Policy	15	--
2. OSD - Deputy Comptroller for Internal Audit	101	2
3. Defense Supply Agency (DSA) - Auditor General	129	--
4. Army Audit Agency	839	81
5. Navy - Auditor General	519	56
6. Air Force - Auditor General	545	705
Sub-Totals	2,148	844

CONTRACT

7. Defense Contract Audit Agency	3,540	--
	5,688	844

The internal auditing effort at the OSD level is carried on by two different groups, both within the Office of the Assistant Secretary of Defense (Comptroller). One group, the Office of Director for Audit Policy, reporting to the Deputy Assistant Secretary (Systems Policy and Information), has responsibility for developing and providing audit policy guidance for all audit organizations in the Department. As second group, called the Office of the Deputy Comptroller for Internal Audit reports one level higher in the organization and provides a quick audit response to matters of special interest to the Secretary of Defense and his staff. This second group is also responsible for audits of programs and procedures which involve more than one military service or agency, for audits of the Military Assistance Program, and for audits of certain other Department components.

The audit groups of the three Military Departments (Army, Navy, and Air Force) and of the DSA are largely autonomous. There is relatively little interchange or contact among these internal audit groups. The hiring, training, and assignment of audit personnel to specific tasks are handled by each Military Department or Agency with a minimum of guidance or direction from other groups.

The internal audit organizations of the Army and the Navy are organized along similar lines, with relatively large regional, area, or resident offices located throughout the United States and overseas. The internal auditors of the Air Force, unlike those of the Army and the Navy, are stationed at numerous air bases and installations as resident auditors. This results in a wide dispersion of audit personnel in small, relatively permanent groups called Auditor General Resident Offices (AGROs), typically consisting of five or six persons.

The Defense Supply Agency (DSA) manages the procurement and distribution supplies common to all the Military Departments and Defense Agencies and provides related contract administration services. The personnel of the internal audit organization of DSA are located at major supply centers, depots, and support or service centers throughout the United States.

The Defense Contract Audit Agency (DCAA), which employs over half the audit personnel in the Department, is responsible for performing contract auditing for the Department. In so doing, it provides accounting and financial advisory services regarding contracts and subcontracts to all Department components engaged in procurement and contract administration. The DCAA functions as a virtually autonomous organization, being responsible for the hiring, training, and direction of its personnel, subject only to policy and budgetary controls of the OSD. Under the present Department organization, only the DCAA has the responsibility to audit the records of defense contractors.

The DCAA also conducts audits of contractor records for eighteen other governmental agencies on a reimbursable basis. Approximately 14 percent of the total effort of the DCAA is expended for these agencies.

In addition to the internal audit groups, there are various other groups who perform audit work. The largest of these are the internal review groups at Army and Navy installations. These people are part of the staff of the installation commanders. They act as trouble-shooters for the commanders and perform a variety of other functions, including, in many cases, audits of payrolls and nonappropriated funds. It is difficult to determine exactly who is engaged in such internal review activities because classifications and nomenclature vary, but it is estimated that more than 1,600 persons are so engaged in the Army and the Navy. In the Air Force there is no separate group with responsibility for

internal review, as there is in the Army and the Navy. Internal auditors in the Air Force perform not only the functions normally associated with those of the internal auditor, but also those of the "internal reviewer".

While certain of the duties of internal reviewers in the Army and the Navy are to some extent similar to the lower-level duties of internal auditors, evidence does not indicate that in practice there is any substantial duplication of audit work.

The Inspector General organizations are concerned primarily with military readiness, morale of military personnel, condition of physical facilities, investigative work, and compliance with established policy or regulations. Although some aspects of management auditing are performed by the Inspector General organizations, such reviews represent only a minor part of their mission and lack the depth of those made by the internal auditors. It appears that the Inspector General reviews do not constitute a significant duplication of the work done by the present internal audit groups.

The procurement management review groups are composed largely of specialists in procurement and are concerned solely with the Department's procurement process. They report to the procurement policy officials in OSD, the Military Departments, and DSA. As in the case of the Inspector General organizations, the work of the procurement management groups does not appear to result in significant duplication of the work of the internal auditors.

A. Nature of Auditing Effort

In the DCAA, the auditing effort is confined almost entirely to the cost accounting and financial systems of contractors. This is in marked contrast to the kind of auditing performed by the internal audit groups of the Department. These groups are concerned largely with operational or management type audits in which the auditor reviews factual information concerning the manner in which a given mission or task is being carried out.

The terms operational auditing and management auditing have come into common use to describe the extension of internal auditing to all operations of an organization, rather than merely the financial and accounting areas. Internal auditing as a concept was originally limited to the review of financial matters. However, it has been expanded to include the independent appraisal of all operational activities in order to provide management with information on the effectiveness and efficiency with which such operations are being performed.

This expansion of activities has become too broad and should be restricted to the audit to determine efficiency of management. Reviews such as those of the operational readiness and performance of helicopters in Vietnam should not be performed by the internal audit function, but are properly assigned to the operational test and evaluation functions. Determining the effectiveness and efficiency of business procedures within the Department should be the responsibility of defense internal audit. However, operational effectiveness should not be within the scope of their activities. The function of program and force analysis, operational test and evaluation, the inspectors general and the defense internal audit should remain separated.

B. Problem Areas

It was found that the Department audit groups are performing their assigned missions at

clearly acceptable levels. In general, the groups are staffed by competent people who are sincerely interested in doing a creditable and constructive job. Their audit findings appear to be reliable, and their suggestions and recommendations are of good quality. They serve the Department and its various components well and contribute to improved performance, the value of which appears to exceed substantially the cost of operating and maintaining these audit groups.

The above general evaluation does not mean, of course, that there is not substantial room for improvement. In an environment of significantly changing technology and conditions, it is understandable that this should be so. There are a number of factors, particularly in the area of internal auditing, which are preventing the auditing function within the DoD from reaching the level of efficiency and competence that we believe can be obtained.

The internal auditing effort at OSD level (i.e., at the level above the Military Departments and Defense agencies) is fragmented and lacks sufficient prestige to provide the coordination, audit coverage, and leadership to achieve its full potential.

There is insufficient uniformity of audit policies and procedures, and in their implementation, throughout the Department of Defense.

There are insufficient career opportunities for civilians in professional capacities at all levels of internal auditing.

There is substantial opportunity for improved and more efficient education and training of professional audit personnel through the use of joint facilities and programs.

There are insufficient specialists with experience in EDP auditing and statistical sampling in the internal audit groups.

In general, internal audits, both operational and financial, take longer than necessary because of too extensive investigation and study of the underlying facts.

While a single internal audit agency in the Department of Defense would permit a more efficient supervisory and management structure, provide more attractive career opportunities for professional personnel, and provide better coordination and control for the Secretary of Defense, it is also very desirable to continue to provide the Military Departments with an audit capability of their own to monitor the attainment of their own objectives. On balance, it would be preferable for internal audit organizations of the Army, Navy and Air Force to continue to provide audit capability to their own Departments.

In addition to these fundamental organizational problems, there is substantial room for improvement in other phases of the internal audit activities.

A military officer is placed in a difficult position when he is asked to evaluate and report on an activity under the command of a higher-ranking officer. It is also desirable to provide more attractive career opportunities for professional civilian auditors to improve the likelihood of attracting and retaining highly competent people.

In a number of OSD and DSA internal audits, the actual time expended exceeded the original time estimate by as much as 50 percent to 100 percent. The audit staff should be

required to prepare more detailed and realistic time estimates and should be held accountable for variances therefrom.

One notable omission from audit coverage is the activities of major headquarters staffs in the Military Services, which have not to date been subject to audits.

The Directorate of Inspection Services (DINS), organizationally located in the Office of the Assistant Secretary of Defense (Administration), has the responsibility for inspections or surveys of the operational and administrative effectiveness of the Office of the Secretary of Defense, the Joint Chiefs of Staff, the Unified and Specified Commands and the Defense Agencies. DINS also has responsibility for criminal investigation and counter-intelligence activities within the same organizations. Their activities do not include financial and accounting audits.

For many years, internal auditing in the Department of Defense was limited largely to financial and accounting areas, and therefore it was appropriate that the internal audit organizations report to the Comptrollers. Now that the emphasis of internal audit has been extended to management areas, it would be more appropriate in the Military Departments for these internal audit organizations to report to a level of management with broader scope than that of the Comptroller.

The internal auditors of the three Military Departments feel compelled to go to great lengths to be certain of the frequency of occurrence of a particular type of error or a specific deficiency in a system. There is a possibility for rather substantial reductions in audit time, if the managements of the Military Departments would be willing to accept the results of reduced checking and fewer examples of error situations.

While the Navy has many preprinted audit programs, which it uses for the most part as reference material, the Army and the Air Force in many cases prepare individual audit programs for each audit, even though the function to be audited is common to many locations. The development of such programs is time-consuming and results in duplication on a service-wide basis.

III-18 An internal audit organization should be established at the OSD level, headed by a highly qualified civilian audit administrator who should report to the Deputy Secretary of Defense (Evaluation) through the Assistant Secretary of Defense (Comptroller). This new office, which might be called the Office of Defense Internal Audit, should include the present functions and staffs of the Office of the Director for Audit Policy, the Deputy Comptroller for Internal Audit, and the Directorate of Inspection Services now existing in the Office of the Assistant Secretary of Defense (Administration). In addition to the existing responsibilities of the audit groups being combined, the new Office of Defense Internal Audit should direct its efforts toward:

(a) Making more extensive reviews of the manner in which the internal auditing function is being carried out by the internal audit organizations of the Military Departments and Defense Agencies.

(b) Making more internal audits of inter-Service activities and Unified Commands

with the use of its own personnel to a much greater extent than is presently being done.

III-19 The head of each internal audit group should be a civilian, and the internal auditors of each of the audit groups should be primarily civilian rather than military personnel. The head of each departmental internal audit group should report directly to the Secretariat of his respective Department.

III-20 A single formal internal audit education and training program within the Department should be initiated by the new Office of Defense Internal Audit, the execution of which could be delegated to one of the Military Departments as executive agent.

III-21 The following modifications in internal audit should be made:

(a) The guidelines for determination of savings under the Cost Reduction Program should be clarified and improved to permit such determinations to be made with greater reliability;

(b) The proposed new Office of Defense Internal Audit should develop improved methods for budgeting and controlling the time utilized on internal audits;

(c) Each audit group should expand its audit coverage to include the activities of major headquarters staffs at the departmental level;

(d) Audit tests and investigations should not be extended beyond the point where findings are sufficient to identify significant problems and to support reasonable conclusions as to their causes and seriousness; and

(e) Standard audit programs or modules should be developed and used for common audit areas. They should be flexible enough to permit modifications in the field prior to the commencement of audit assignments.

CHAPTER IV

MANAGEMENT OF PERSONNEL RESOURCES

I. INTRODUCTION

The success of any organization is determined in large measure by the qualifications of the people engaged in its activities, particularly by the caliber of the personnel in positions of top responsibility.

The Department of Defense is no exception to this general principle, but the effective organization and management of its operations is made more difficult by the very large number of people on its rolls -- both military and civilian -- and by the fluctuations in these numbers to meet changing requirements. On June 30, 1969, the Department of Defense had 4.8 million people on its rolls, of whom 3.5 million were military and 1.3 million were civilians.

Military personnel is made up of a nucleus of career professionals and a much larger group flowing into the Armed Forces for relatively short periods of service and then moving out again into civilian life.

The nucleus of career officers and enlisted men must provide the capability, continuity, and stability needed during periods of peace and at the same time be ready in sufficient numbers and in professional competence to fill the principal leadership positions in time of war.

Because of their composition and their mission, the Armed Forces must direct a major part of their effort to training, education and development of their personnel. This means training for the parade of short term personnel flowing in and out of the Services and continuous education and development for the career professionals.

Furthermore, the skill requirements of the Armed Forces are constantly changing. Advances in technology are reflected in greater sophistication in weapons systems. This means that better educated and more highly skilled personnel are needed to maintain and operate the machines and equipment of modern warfare.

II. CIVILIAN PERSONNEL

The Department of Defense is a large employer of civilian personnel, who may be classified as follows: (1) White collar employees, the large majority of whom are included in the General Schedule (GS) Civil Service grade structure; (2) Blue collar Civil Service employees; and (3) Indirect hires, consisting primarily of foreign nationals employed abroad.

There are two overriding management problems connected with civilian employees of the Department.

The first, and most significant from a management viewpoint, is the rigidity of the personnel system. By far the most troublesome effect of the rigidity is at the higher levels, or supergrades (GS 16, 17 and 18), of whom there are approximately one thousand in the Department serving as administrators, managers and scientists. Position assignments and

grades of these key personnel are subject to approval of the Civil Service Commission, based largely on written job descriptions which are keyed to such factors as the number of persons supervised and the budget of the operations supervised. Efforts to adjust or change job assignments of supergrade civilian personnel are subject to interminable delays and most frequently, to rejections. In such a large organization as the Department of Defense, a dynamic management structure requires a continuous review to adapt to changing conditions and to improve management capabilities. This requires, in turn, a flexibility in utilization of senior personnel which currently does not exist. The existing management inflexibility to deal with senior civil servants is incompatible with efficient operations of the Department of Defense.

Increased authority for the Secretary of Defense over senior civilian personnel is essential. He must be able to match individual talents with position assignments, if necessary, based on his judgment of the importance of a job and regardless of the scope of supervision or size of budget involved. He must be able to reassign personnel whose job responsibilities have grown beyond their performance capabilities. He must be able to move younger personnel into more senior positions on the basis of demonstrated capabilities without being so constrained by seniority requirements.

Not even the best organization and management procedures will improve effectiveness of defense operations unless qualified personnel are matched to the requirements of the jobs.

The second major management problem connected with civilian personnel is the utilization practices for civilian personnel in the Military Departments, which employ some ninety-one percent of "White Collar" personnel in the General Schedule (GS) grades of the Civil Service in the Department of Defense. All too frequently, non-combat activities in the Military Departments are headed (or commanded) by a military officer whose immediate subordinate is a civilian. This one-on-one relationship (or two men for one job) is predicated on the fact that the military officer who heads the activity is subject to normal military rotation - every three years or less - and his civilian subordinate remains to provide continuity in the direction of the activity. Often the particular activity is technical or specialized in character, with which the military officer in the number one position is likely to have had no prior experience or familiarity, necessitating increased reliance, at least initially, on his immediate civilian subordinate. The incentive for the civilian subordinate to excel, however, is inhibited by the fact that he cannot, under this system, aspire to the top job in the activity, for it is reserved for a military officer.

While the need for military billets to which to rotate military officers from hardship or hazardous assignments is recognized, as is the desirability of providing an officer with broad exposure to Service-directed activities, there is substantial room for improvement in this personnel structure. All activities which do not have an essential requirement for military direction at the head should be identified. For at least a substantial portion of such activities, civilian direction from the top should be made at least optional, and to the extent the requirements of military rotation policies will permit, should be converted to civilian positions. This will result in manpower savings as well as improved civilian personnel incentives.

IV-1 The application of Civil Service rules to "supergrade" positions in the Department of

Defense should be changed to provide the Secretary of Defense with more authority for placement, rotation, promotion and compensation rates in these grades.

IV-2 Those activities in the Military Departments now headed by a military officer with an immediate civilian subordinate should be surveyed to determine the necessity of military direction of the activity, and where no such requirement is found to exist, the position at the head of the activity should be civilianized or made optional for a military officer or a civilian to fill, and dual staffing should be permitted only in exceptional cases.

III. MILITARY PERSONNEL

a. General

The acquisition and retention of officers and enlisted men in the Armed Services is adversely affected by the negative attitude of significant segments of the public towards national defense and military service.

There is an open hostility toward the military on many campuses. The ROTC and campus recruiting by the Armed Services and defense-related industries have been prime targets. At a number of universities, faculties have voted to strip ROTC of its academic standing and to relegate it to the status of an extracurricular activity. It has been forced to withdraw entirely in some instances.

The impact of this antimilitarism is not confined to the university campus nor to the training and acquisition of officers. It directly affects recruiting activities at all levels. While the total number of young men and women who may have been deterred from military service cannot be ascertained, it is undoubtedly significant.

At the root of much of this problem is disenchantment - even bitterness - with respect to the Southeast Asian War. It would be unwise to assume, however, that without positive steps to overcome anti-military feelings, an end to that war will necessarily fully restore respect for military service.

b. Rotation

Officers and enlisted men are rotated among assignments at much too frequent intervals.

It is clear from the evidence that the rotation practices which have been followed result in (a) excessive and wasteful cost, (b) inefficiencies in management, and (c) difficulty in fixing responsibility.

A staff study of Army, Navy and Air Force promotions to General Officer and Flag rank in 1969 revealed this situation: there were 174 officers in the group and their average service was 24 years; these officers had been given 3,695 assignments, or an average of 21 per man; the average duration per assignment was 14 months. Looked at another way, the average officer had spent: 8 years in Operational assignments, 5 years in Service Schools and other

educational assignments, and 11 years in Staff assignments.

Although this is a relatively small sample, there is no reason to believe that it is not reasonably typical of the prevailing career pattern of all military officers.

It is recognized that some assignments must be of limited duration: for example, operational assignments to hardship or combat duty. School assignments also are of limited duration as these are determined by the length of the course. However, in the case of the other assignments, there are no such inherent limitations.

The driving force in almost all of these assignments (combat assignments excepted) is to give the officer a wide variety of exposure as an aid in his training and development. The problem is that the requirements of the job seem to be secondary to the career pattern which has been mapped out for the officer.

This system of rotation of officers leads inevitably to deficiencies in management. Officers assigned for such limited periods simply cannot acquire a knowledge of the work, become familiar with the qualifications of the people, make plans, set goals and push the work ahead.

This system of rotation not only fails to provide management and leadership needed on the job, but also has deficiencies in accomplishing its stated purpose — the development of the officer himself. Men are not developed by being observers; they must have responsibility to assure growth.

From the point of view of the position to be filled, as well as in the best interests of the officer himself, his job assignments should be of sufficient duration so that he can become thoroughly involved in the work and be fully responsible for results.

There is merit in giving to officers opportunities in a broad spectrum of military responsibilities. Nevertheless, under existing conditions in which technical or professional training in areas other than commanding men have become of increasing importance, the Services' current rotation policies and rates are counter-productive.

In the technical and professional areas, the rotation rules often call for rotation of an officer out of an assignment at a very critical point in the job he is performing. In addition, when an officer is rotated out of a technically complicated job, his replacement often either comes at the time of rotation or later, and therefore, does not have an adequate opportunity to acquire the necessary background before his predecessor leaves.

One solution is to change the rules for career advancement, rather than try to conform the requirements of the job to an arbitrary set of rotation and promotion rules. This is particularly true in the technical and professional areas.

IV-3 Specialist careers should be established for officers in such staff, technical and professional fields as research, development, intelligence, communications, automatic data processing, and procurement.

 IV-4 The duration of assignments should be increased, and should be as responsive to the requirements of the job as to the career plan of the officer. Officers continued on an assignment for these reasons should not be disadvantaged in opportunity for promotion.

 IV-5 In technical assignments, the officer's replacement should be assigned to the job sufficiently in advance of his predecessor's departure to be ready to take over without loss of momentum when he leaves.

c. Promotion

Officers

Opportunity for promotion provides the motivating force and greatest incentive for the military officer.

The following table shows the numbers of military officers in the Services by grade.

Officers on Active Duty - December 31, 1969

<u>Grade</u>	<u>Title</u>	<u>Number</u>
	<u>Army-Air Force-Marines</u>	
0-10	General	Admiral 40
0-9	Lt. General	Vice Admiral 142
0-8	Major General)	Rear Admiral)
0-7	Brig. General)	Rear Admiral) 1,156
Sub-Total	General and Flag Officers	1,338
0-6	Colonel	Captain 18,181
0-5	Lt. Colonel	Commander 43,993
0-4	Major	Lt. Commander 69,987
0-3	Captain	Lieutenant 116,859
0-2	1st Lieutenant	Lieutenant (jg) 67,917
0-1	2nd Lieutenant	Ensign 58,893
Sub-Total	Commissioned Officers	377,168
W-1 - W-4	Warrant Officers	30,783
Total Commissioned and Warrant Officers		407,951

Young officers who meet the standards move up fairly rapidly to Grade 0-3 (Captain - Lieutenant). Progress above this level is complicated by several factors: (a) "Regular" officers have a better chance of promotion than "Reserve" officers on active duty which is explained by the fact that the better qualified "Reserve" officers have already been transferred to "Regular" status; and (b) the numbers needed in Grade 0-4 simply will not permit the promotion of a substantial proportion of Grade 0-3 officers. (The number of officers of Grade 0-4 and higher is limited by statute.)

The progression to Grade O-5 and on to Grade O-6 becomes increasingly difficult, and the ratio of officers in Grade O-6 to those in O-7 is 13 to 1. For this reason, attainment of Grade O-6 is looked upon as the measure of a successful career.

Not only are the numbers of officers established by legislation, but the procedures handling promotions are also set forth in the law.

The Secretary of the Military Department has an important responsibility in the whole promotion procedure. He appoints the selection board, he instructs them as to the approach they should use in making their selections, and he approves the list to be forwarded to the President.

Although not specifically mentioned in the law or procedures, the Military Chief of the Service works closely with the Secretary and has an influence on the selection of boards and the decisions made. This is particularly true of promotions to the General or Flag Officer ranks.

The fact that promotions are within the exclusive authority of an officer's parent Service creates an incentive for officers, even when serving on assignments with unified organizations, to adhere closely to the official Service position of his parent Service on issues in which he is involved. This circumstance can influence the objectivity of an officer's performance. The extent to which this undesirable incentive motivates officers cannot be precisely measured, but there can be no question that many officers are convinced that any evidence of a deviation by them from their parent Service's official position will seriously jeopardize their chance for further promotion.

There is substantial evidence that the Services place too much emphasis on "Command" experience in promotion of officers, particularly at the higher ranks, and do not give adequate weight to the growing importance of functions requiring technical competence or executive management talent - e.g., Program Management, Procurement, Research and Development, Intelligence, Communications, and ADP, etc. There should be a better balance.

There is too much emphasis in the Military Services on promotion by "date of rank." (There is a common saying among the military that at least the junior officers progress in lock-step.) The importance of seniority is obvious, but promotion opportunities should be premised on criteria which stress performance and ability more, and seniority less. This is increasingly important as officers progress up the ladder.

IV-6 Promotion Boards should consider a larger proportion of candidates from "below the zone" in order to encourage younger officers of top ability to remain in the service. (The percentage so selected might well vary by grade).

IV-7 The Secretary of Defense should have more direct responsibility for the promotion and career management of officers to and within General and Flag ranks, and in the selection of and instructions to promotion boards.

IV-8 The Secretary of Defense and Secretaries of the Military Departments should designate specific percentages, or proportions, of promotions in particular joint, technical, or professional fields and should establish special career ladders of promotion in special technical and professional fields.

d. Military Compensation

Provision of an equitable compensation scale is important at any time, and it is receiving particular attention just now for two reasons: (a) the Office of the Secretary of Defense is nearing conclusion of an intensive study of military pay, and (b) the Gates Commission issued its report in February 1970 on the "All Volunteer Armed Force," among other things in effect, contains recommendations to substitute the incentive of higher pay for the compulsion of Selective Service.

In view of the comprehensive study already made by the Gates Commission, a review of the issue of an All Volunteer Armed Force was not undertaken. It should be recognized, however, that whether made up of volunteers or draftees, or a combination of the two sources, the Armed Forces should provide a system of equitable pay, appropriate benefits and conditions of service which are conducive to acquisition and retention of officers and enlisted men in the numbers needed and with the skills required. Short service and high turnover are to be expected in certain categories, but excessive turnover is sheer waste.

Provision for retirement pay is an important segment of the military pay package. Retirement pay provisions are poorly designed from the point of view of (a) equity to servicemen, (b) retention of qualified men in the Services, and (c) maintaining the age ratios among personnel that will insure young and vigorous forces.

IV-9 (a) Military pay and other forms of compensation should be made sufficient to facilitate recruitment and retention of competent officers and enlisted personnel. This applies to all grades and position classifications, and particularly to those that have suffered the highest termination rates. This should be done as a matter of equity, and to assure the acquisition and retention of competent military manpower.

(b) The military retirement system should be adjusted in order to encourage retention of qualified and needed personnel, while at the same time permitting military forces to be kept young and vigorous. Among retirees, consideration should be given to the varying needs of those still in the working age group and those over such age. The trend of increases in both the number of retirees on the rolls and the total costs of military retirement necessitate early consideration of the retirement system.

e. Accession and Retention of Commissioned Officers

The Armed Forces have somewhat more than 400,000 officers and about one-sixth of these are replaced each year.

The Service Academies produce a relatively small proportion of the officers entering the Services - in recent years less than 4%. However, these officers have been selected under rigid standards, they have received an excellent education and they are highly motivated toward a full career as professional military officers.

Graduates of the Service Academies are commissioned as officers of the Regular Army, Navy, Marine Corps or Air Force. They now have an obligation to serve at least 5 years, and every encouragement is given to have them continue for a full career. The retention rates of graduates of the Service Academies are much higher than the rates for officers who come in from other sources.

The Reserve Officers Training Corps (ROTC) is one of the principal sources of officers for the Armed Forces. Over the 5-year period 1965-1969, it produced 9 times as many as the Service Academies and about one-third of all officers commissioned.

There is a wide diversity of types of ROTC programs offered by the Services. The ROTC program is offered in 353 colleges and universities, some of which have programs from all three Services while others have only one or two of the Services represented.

The ROTC program is divided into two parts - Scholarship and Non-Scholarship.

Under the Scholarship Plan, there is a very careful selection procedure, and the candidates selected have qualifications closely paralleling those of students admitted to the Service Academies. The Scholarship program is usually for four college years, but the Army offers 2-year scholarships and the Air Force has one-, two- and three-year awards. The Scholarship student receives a \$50.00 monthly stipend, and, in addition, receives tuition, instructional fees and an allowance for books. He is required to serve at least 4 years. Each of the Services is now authorized to have 5,500 ROTC students on scholarships.

The Navy has looked upon its Scholarship program as a source of regular officers; the other two Services offer an opportunity for ROTC Scholarship holders to become Regulars, but on a selective basis after a period of service.

The Non-Scholarship Program has less rigid selection standards. In some colleges all students are required to take ROTC training during their first two years, but the number of institutions with these mandatory requirements is declining. Regardless of whether the first two years are mandatory or optional, participation in the third and fourth year of non-scholarship ROTC is voluntary in all cases, subject to the acceptability of the individual by the Military Department involved.

The Non-Scholarship student receives \$50.00 per month during the last two years of the 4-year program. His required active service is at least 2 years.

The Officers who come into the Services under the Non-Scholarship plan are usually commissioned in the Reserves. Retention rates for these officers after their required period of service is not high. This lower retention rate, as compared with graduates of the Service Academies, is explained by two factors: first, the main purpose of the ROTC programs is to supply the large number of junior officers required by the Services, a much lesser number of

officers being needed in the higher grades; second, the major thrust of the ROTC man's undergraduate studies, unlike those of the attendees of the Service Academies, is toward preparation for a civilian career.

Because it is both the largest and a proven source of officers, the ROTC program should be strengthened. The ROTC graduate would benefit, and there would be increased acceptance of ROTC on the campus, if typical ROTC curricula were modified to achieve a better balance between technical military subjects and subjects of a more solid academic content.

Both the Service Academies and the ROTC program involve a lead time of up to four years in the production of officers. When there is need for rapid expansion in the number of officers, the Services have other programs which are productive in shorter periods. These Officer Training Programs offer opportunities for college students, college graduates and qualified candidates from enlisted personnel and other sources. They have the advantage of flexibility, since they can be expanded and contracted rapidly to meet changing requirements.

In addition to the Senior ROTC program at the college level, there is also a Junior ROTC program offered to male students in 805 high schools. The Army has by far the largest such programs.

Students who have had Junior ROTC receive credit when they enroll in the Senior program in college. However, the principal advantage is in the training itself with its emphasis on physical fitness, discipline and the development of leadership. In many areas, and particularly in the larger cities, this program offers constructive opportunities for development of young men, including those from minority groups and broken homes.

Total enrollment in these Junior ROTC programs has increased from 63 thousand in October 1965 to 134 thousand in October 1969. This latter figure represents less than 24% of the male enrollment of these 805 high schools, and is a very small fraction of the more than 8 million male high school students in the country.

In the accession of officers, as in other areas of personnel administration in the Department of Defense, efforts should be continued to provide equal opportunity for minority groups. Some progress has been made in recruitment for the Service Academies, and the Senior ROTC program of one or more of the Services is now offered in 15 predominantly Negro colleges as follows:

<u>Military Department</u>	<u>Colleges</u>	<u>ROTC Enrollment</u>
Army	14	5,143
Air Force	5	882
Navy	1	67
Total		6,092

The problem of retaining a sufficient number of competent military personnel has always existed, but in recent years it has become increasingly serious. The reenlistment rate of Regular enlisted men in all Services combined has dropped from 50.2 percent in 1965 to 34.2 percent in 1969.

For officers, the retention rates vary considerably, but for certain special essential skills, the trends are particularly serious.

In attempting to ameliorate the serious reenlistment problem, the Services devote considerable attention to troop information and education programs. This is an important activity and may well merit more thoughtful and concentrated effort than it has received.

In addition to strictly military training there is a need for substantially increased emphasis on a thoughtful program, factually and objectively designed, to raise the level of knowledge of American and world history and of our form of government.

Troop information and education officers are often not given adequate training. There should be special training of the officers who undertake this important educational responsibility, and appropriate recognition given when this assignment is well performed.

IV-10 In order to improve the process of acquisition and retention of military personnel, the Executive Branch should develop, and submit to the Congress for its consideration as necessary, a total military personnel program which coordinates and reconciles all the separate considerations, particularly including; (1) military compensation and retirement, (2) personnel policies on promotion and rotation, and (3) acquisition programs, such as Reserve Officers Training Corps.

IV-11 Participation of predominantly Negro colleges in the ROTC program should be encouraged. The Navy and Air Force in particular should increase their programs in predominantly Negro colleges.

IV-12 The Junior ROTC Program should be expanded.

IV-13 Substantially increased emphasis should be placed on information and education programs for enlisted personnel, with special training provided for officers to be responsible for conducting the programs.

CHAPTER V

OTHER MANAGEMENT CONSIDERATIONS

I. TELECOMMUNICATIONS

A. General

The telecommunications systems of the Department of Defense, using every presently conceivable type of signal, carry nearly every type of information. Current annual expenditures are in the two-to-four billion dollar range. More than 100,000 people on the Department's payroll spend full time in telecommunications activities in locations around the world. These locations are of necessity often remote and costly to support.

The span of technology is nearly all encompassing. The Department has a recognized need to load antennas at the lowest possible frequency (SANGUINE) and, by contrast, to use the highest frequency which is just now beginning to be understood (LASER). The signals of radars and other sensing devices, for example, are transmitted over short and very long distances for analysis and as decision aids. Sensor and device control, voice and record, secure and clear, analog and digital, graphic and photographic signals pass over vast networks composed of every type transmission system.

Buried, aerial and underseas cables along with field wire are significant system elements. LF, HF, VHF and UHF radio systems are used extensively. Tropospheric scatter, terrestrial point-to-point and celestial (satellite) microwave radio systems are used in many forms and configurations. The signals carried by these systems are switched and processed by a wide variety of switchers, signal processors, computers and/or other devices to deliver the information carried by them to the users in useful form for decision making or for the support and administration of the Department's activities.

The reliability and redundancy needed in some defense telecommunications are both bona fide and unique. Virtually every telecommunications technology known is applied somewhere within the Department. The state-of-the-art is continuously pressed to find new or better solutions to satisfy legitimate military requirements.

The telecommunications requirements of the Department are largely being met, although at a greater cost than necessary. Many fine systems and operations exist. These reflect the efforts of able technicians, engineers, researchers, managers, and executives in the telecommunications field in the Department and of contractors. However, duplication and inadequate inter-operability, Military Department parochialism, and divided and weak central management from the Office of the Secretary of Defense have reduced the efficiency and effectiveness of the procurement and utilization of telecommunications resources.

The command and control of personnel, weapons, and weapon systems, and their support is the military necessity and justification for telecommunications in the Defense Department. The effective and efficient administration of worldwide forces numbering in the millions is an easily demonstrated justification for large-scale telecommunications. Therefore, telecommunications is nearly universal to the Department's activities.

Telecommunications is that capability along with associated devices which enables commanders at the various levels along the military operations chain of command to have timely, appropriate and sufficient information on which to base the command of operations. Much of this capability has been traditionally called strategic communications, but this nomenclature has largely lost its meaning in the wake of technological and organizational evolution since World War II. The telecommunications associated directly with basic combat units is defined as tactical and includes telecommunications in these categories only: man-pack, vehicular, aboard naval vessels, airborne, combat field units necessary to the fluid movement of ground forces in combat, combat airfield navigation aids, air transportable field units while in combat deployment and finally, all like assets held for contingencies and in combat readiness.

The command and control aspect of telecommunications means the telecommunications for command and control, including directly coupled displays, consoles, processors, and other terminals whose primary function is telecommunications, and special subsystems such as minimum essential emergency communications network (MEECN).

B. Operations

The point-to-point and long-haul telecommunications requirements are satisfied, for the most part, by the Defense Communications Systems (DCS), a worldwide telecommunications capability planned, engineered and managed by the Defense Communications Agency (DCA), but procured, owned and operated by the Military Departments (except those that are leased, which are operated by the Military Departments). The bulk of the DCS consists of common-user switched systems:

(1) The Automatic Digital Network (AUTODIN) is a world-wide system primarily for handling record and data traffic and used in common by the Military Departments and others in the Department of Defense structure. It employs high quality, current technology in store and forward switching, message processing, terminal and peripheral hardware. Its assets are largely leased from common carriers in the Continental United States (CONUS) and Hawaii and largely owned, operated and maintained by the Military Departments elsewhere. The system is planned, engineered and managed by DCA.

(2) The Automatic Voice Network (AUTOVON) is a world-wide dial network, primarily for voice traffic but capable of data and record transmission. It is a common-user service in that it is used by all elements of the Department structure. Its four wire trunks and electronic switching reflect high quality current technology. Its assets are also largely leased in the CONUS and Hawaii, and largely owned, operated and maintained by the Military Departments elsewhere. It is planned, engineered and managed by DCA.

(3) The Automatic Secure Voice Communication network (AUTOSEVOCOM) is a worldwide dial secure voice network. It is used in common by the Military Departments and other elements of the Defense Department. It is planned, engineered and managed by DCA. The Military Departments operate and maintain Government-owned elements.

The resources of the DCS are used also to meet some, but not all, long-haul telecommunications needs for dedicated-use systems. Dedicated systems, or networks, are noncommon-user assets and are those procured and used for a particular need, generally for a particular Military Department or command. There is a large number of these, some of which are very large. The trunking for some of them is managed by DCA. Other elements

use large-scale, fixed-plant routes which are not a part of the DCS and, therefore, are in no way under the management control of DCA.

While the DCS is the backbone of the Department's system, it is only a part of the total complex. Telecommunications for military garrisons, weapons systems, dedicated systems and tactical needs comprise an even larger segment of the telecommunications complex.

Telecommunications technology is changing more rapidly than is almost any other discipline and there is no indication that the rate of change will slow in the foreseeable future. Telecommunications are critical to the military mission itself. Effective and efficient administration of the entire spectrum of the Department's activities rests heavily on adequate, readily accessible telecommunications.

1. Military Departments

Each of the Military Departments has a large communications command to operate and maintain its telecommunications, including the dedicated systems it has retained and the elements of the DCS assigned to it. These commands are: ARMY - Strategic Communications Command (STRATCOM); NAVY - Naval Communications Command (NAVCOMM); and the AIR FORCE - Air Force Communications Service (AFCS).

In the Air Force, the Strategic Air Command (SAC) and the Air Defense Command (ADC) have sizable telecommunications organizations of their own in addition to the AFCS. The Ground Electronics Engineering Installation Agency (GEEIA) is a separate worldwide Air Force command for field engineering and installation. The Air Force proposes to fold GEEIA into AFCS. Field engineering and installation in the Army is a function of STRATCOM while in the Navy these functions are performed by the Navy Electronics Command (NEC).

Each of these worldwide commands has an organization structure headed by a General or Flag officer. To help these organizations remain sensitive and fully responsive to mission requirements, the jobs at certain levels of the command structure are dual roled; i.e., these officers serve their own chain of command for the operation and maintenance of communications, as well as serving as the communications staff officer for the military operations chain of command.

These Military Department commands for telecommunications are large scale, complex undertakings. The largest has over forty thousand people, most of whom are technically oriented. They, along with the communications and electronic staffs of the Military Departments, do all necessary programming, budgeting, field engineering, installation engineering, transportation, construction, installation, acceptance/performance testing, operation, maintenance, modification, modernization, removal, relocation, reconditioning, and reinstallation of all telecommunications. They maintain contingency assets along with personnel in combat readiness. They train, deploy and support the necessary personnel to satisfy all of the above functions.

2. Office of the Secretary of Defense and the Joint Chiefs of Staff

Overall policy guidance and management of telecommunications matters is now widely diffused throughout several elements of the OSD staff, largely as a result of the functional design of the organization.

The Secretary of Defense is the Executive Agent for the National Communications System and the Executive Agent for the Government in all communications security matters.

The Assistant Secretary of Defense (Administration) is the principal advisor to the Secretary of Defense for National Communications Systems (NCS) matters, and is his coordinator for all command and control communications.

The Assistant Secretary of Defense (Installations and Logistics) is the principal staff assistant to the Secretary of Defense for transportation, telecommunications, petroleum and logistical services. He develops both policy and technical guidance to insure the development of compatible Department telecommunications systems and plays a predominant role in the management of the Department's telecommunications resources.

The Assistant Secretary of Defense (Comptroller) is the principal advisor to the Secretary of Defense in programming, budgeting and fiscal matters. His relationship with the defense agencies and Military Departments extends across the entire financial management field. The DCA and the Military Departments communicators work closely with the ASD(C), for it is he who establishes and directs, in coordination with other OSD staff elements, the functioning of the Department's Planning, Programming and Budgeting System (PPBS), which is the mechanism by which Defense components obtain, first, resource approval for updating their portion of the Five-Year Defense Plan and, finally, dollar approval through the annual budget hearing procedures.

The Assistant Secretary of Defense (Systems Analysis) performs analytical functions spanning the entire operation of the Department. In the telecommunications area he performs studies and analyses of quantitative telecommunications requirements in light of strategic missions, force planning, etc., and conducts cost effectiveness studies and reviews communications requirements as a part of his responsibilities.

The Director of Defense Research and Engineering (DDR&E) has the basic responsibility in the telecommunications area for the research, development, test and evaluation of new communications techniques and equipment. In addition, by Secretary of Defense direction, he is assigned the responsibility for planning, directing and supervising the execution of technical support for the National Military Command Center (NMCC) and, in that capacity, exercises supervision over DCA which provides the engineering and actual technical support for the NMCS.

Lastly, the Assistant Secretary of Defense (International Security Affairs) participates with DCA and the Military Departments when negotiations are required to obtain overseas base rights for telecommunications facilities and activities.

At best, the fragmented responsibilities in the Office of the Secretary of Defense generate difficulty in coordinating all of the individual considerations which may arise in an issue, even on such an issue as a discrete weapons system. The problem is greatly magnified when dealing with a commodity or service such as telecommunications which, by the nature of its universality throughout the Department requires corporate management to optimize costs and mission effectiveness.

Within the Joint Chiefs of Staff (JCS), as within OSD, the responsibility for the overview of telecommunications matters is fragmented throughout several functional

offices. And, of course, the Director of DCA reports through the JCS to the Secretary of Defense.

(3) The Defense Communications Agency

The Defense Communications Agency (DCA), a separate agency reporting to the Secretary of Defense through the JCS, exercises management control and operational direction over all telecommunications elements included in the Defense Communications System (DCS). The DCS, and hence the management purview of DCA, stops at the mainframe of bases, posts, camps and stations, a point considerably short of the total system. This means that no one exercises R&D, planning, engineering and management on an overall user-to-user basis for complex systems like AUTODIN, AUTOVON, AUTOSEVOCOM, etc. DCA has little fiscal control of the DCS; for example, it is still possible for money specifically programmed for the DCS to be unilaterally reprogrammed by a Military Department to other purposes, without either the approval or concurrence of the Director, DCA.

The Director of DCA allocates, reallocates and restores DCS service but does not determine restoral priorities, that being a function of the JCS. Nor does the Director have any command function over the DCS; the Military Departments have operating commands who provide for installation, operation, maintenance and support of their assigned portion of the DCS. The Director of DCA takes direct action, via his Defense Operations Control Center (DOCC) in Washington and its area and regional centers, to satisfy requirements, route and reroute circuits, authorize alternate routes, etc.

Additionally, the roles and responsibilities of the Director, DCA, have been constructively expanded beyond the original boundaries. The Director now has these additional duties:

- (1) Acting as manager of the National Communications System (NCS), for which the Secretary of Defense acts as the Executive Agent for the entire Government.
- (2) Acting as system/project manager for the Defense Satellite Communications System.
- (3) Providing technical support for the National Military Command System (NMCS).
- (4) Providing centralized leasing of Department of Defense circuitry from communications common carriers (but not the programming and budgeting for such leases).
- (5) Implementing the automatic switched networks, including the Defense Special Security Communications System (DSSCS).
- (6) Acting as Chairman of the Military Communications-Electronics Board.

4. Research and Development (R&D)

The basic responsibility for R&D efforts lies with the Director of Defense Research and Engineering. The Director of DCA exercises management direction over those R&D activities of the Military Departments which directly relate to the DCS. The Military

Departments directly manage all other R&D efforts under the guidance of DDR&E. The R&D is either carried out in the Defense laboratories, or under contracts generally administered by them.

Telecommunications R&D in the Army is primarily conducted at the several laboratories at Fort Monmouth, New Jersey, which are under the command of the Army Electronics Command, a major command of the Army Materiel Command. An electronics R&D capability also exists at the Army's Electronics Proving Ground, Fort Huachuca, Arizona, also under the command of the Army Materiel Command.

In the Navy, telecommunications R&D is carried out by one of two organizations: the Naval Research Laboratories, under the Chief of Naval Research, or the Naval Electronics Laboratory Center, under the Chief of Naval Materiel.

Telecommunications R&D in the Air Force is carried out primarily by the Rome Air Development Center, an activity of the Air Force Systems Command.

C. Management

The most obvious weakness of the organization structure is the absence of unitary management at the top level to assure effectiveness and efficiency from an overall Department of Defense mission point of view, rather than from an individual Military Department's point of view.

OSD is the only level of the management structure with overall Department of Defense perspective which can be given sufficient authority to assure appropriate standardization, compatibility and inter-operability among DCA and the Military Department elements of telecommunications, while protecting the integrity of the mission requirements of the individual combat, contingency and support commands. It is the only level in a position to objectively balance mission capability and cost. This level should be restructured, and staffed with appropriate expertise to provide effective staff management from a total Department of Defense point of view of (1) all telecommunications resources and (2) all operations and engineering matters relating to telecommunications.

In June 1970, a position of Assistant to the Secretary of Defense (Telecommunications) was established. This ATSD(T) was assigned broad, consolidated functions and responsibilities in the telecommunication area in response to the problems created by the lack of single management from the OSD level. The responsibilities assigned to the ATSD(T) are consistent with the conclusions of the Panel.

V-1 The responsibility for defense telecommunication activities should be under the staff supervision of the Assistant Secretary of Defense (Telecommunications). The Assistant Secretary of Defense (Telecommunications) should be directed to review all defense communications activities with the goal of eliminating inefficient duplication; specifically, for example, those telecommunications activities of the existing Air Defense Command (ADC) which can be effectively merged into other telecommunications operating activities of the Military Departments. The Assistant Secretary of Defense (Telecommunications) should also be directed to assure that each major element of the telecommunications

community in the Department generates professionally planned and managed education, training and career development programs for its engineers, researchers and managers, both civilian and military.

V-2 The responsibility for all existing and future defense long-haul transmission systems, regardless of their current or intended use, should be assigned to the Defense Communications Agency as part of the Defense Communications System, except those vehicular and air transportable types when held as contingencies or while in temporary deployment for active combat support. In addition, the Defense Communications System (DCS) should be redefined so as to include base, post, camp and station telecommunications in the United States and garrison (permanent) type installations overseas. The DCA should also be assigned the fiscal control of DCS elements. The communications and electronics officers of the Unified Commands should be under the operational and technical supervision of the Defense Communications Agency.

V-3 The Air Force Ground Electronics Engineering Installation Agency (GEEIA) and the telecommunications activities of the Strategic Air Command (SAC) should be merged into the Air Force Communications Service (AFCS).

II. AUTOMATIC DATA PROCESSING

A. General

During the past decade the use of computers has expanded at an explosive rate. The computer has become a part of almost every facet of business and industrial life and its effectiveness has been universally accepted. Technological developments during this decade include time sharing, remote job entry,* storage allocation and data protection,** and high speed digital data transmission.

During the next decade, computer systems will undoubtedly continue to develop at a rapid rate. It is anticipated that the larger computer systems in 1980 will have as much as 100 times the capacity of the largest system today, and that the medium-scale computer, which is the backbone of the Defense Department's system today, will be substantially

*Remote Job Entry: The input or readout of data from locations geographically different than the computer, usually by telecommunication, and additionally, in the case of time sharing arrangements, the activation and deactivation of the program.

**Storage Allocation and Data Protection: The predetermined and programmed use of tape or disk storage, usually in time sharing arrangements, where the activation and deactivation of the program and access to the tape or disk is protected by a unique signal, known only to the user.

replaced by a combination of the new, larger computers and small, desk-type computers.

Another major change will result from telecommunications between computer and computer users. Indications are that most computers will be on-line with teleprocessing capability by 1980. At the present time, the majority of the Department's computers cannot be used in this mode.

The recent trend of unbundling* will affect the acquisition of automatic data processing (ADP) equipment as each part of an ADP system will be available separately.

Another trend which will affect the acquisition of ADP equipment is that of the rising software cost. The present systems have about equal investments in hardware and software. By 1980, however, the software cost could be many times the hardware cost.

The Defense Department currently has approximately 2,800 computers (1,200 owned by the Department, the others leased) which are used for general purpose data processing. Thirty-six percent of these are considered to be incapable of performing efficiently by current standards. This inventory consists predominantly of small and medium-size computers with only 113 large second or third generation systems. In addition, it should be noted that a large number of computers are used to considerably less than their capacity.**

The majority of management attention, with respect to ADP in the Department of Defense, is directed toward justification, selection and acquisition of computers. Once the equipment has been acquired, the management of the computers is by the Department's component where the computer is installed.

The challenge which the Department continues to face is that of design and development of standard Department-wide ADP systems. The history of ADP development clearly shows the need for and benefit of, progressive standardization, at least for compatibility. Standard systems were first introduced at the Command level, and were followed by the development of Service-wide systems. Today's primary challenge is at the Department of Defense level.

For example, at the present time, the Army is developing a system which encompasses the Army Logistics Command function. The Air Force is currently working on an Advanced Logistics System, which performs the same functions as the Army system. The Navy is planning a redesign and updating of their Uniform Automatic Data Processing System, which supports their key logistics functions. Many of the modules of these systems perform almost identical functions, such as warehousing, shipping and receiving, inventory control, etc. Software programming for each of these is costly and each independent modernization step taken on the many separate programs involves unnecessary duplication and appears to lock in more tightly the incompatibilities of the various systems. This same observation applies to other functional areas, such as personnel management systems and base level management.

*The separation of system design, hardware, software, support, training and maintenance aspects into independently purchasable and manageable elements.

**Inventory and usage data are reported by fiscal year to the General Services Administration (GSA), and included in their annual report on all Government ADP equipment.

B. Hardware and Software System Design Capability

The Department is almost completely dependent on hardware manufacturers for system design* for hardware and software. Those individuals within the Department who are competent in system design are scattered among the various components of the Department and their efforts are directed primarily to other activities such as development of application programs or information systems. The lack of in-house system design capability necessitates placing a substantial load of system design work on potential vendors as a condition of responding to Requests for Proposals. This condition has a tendency to limit responses to the larger suppliers, and, even within this group, to those suppliers who assess their competitive position as being very high. The net effect inhibits competition for hardware procurements.

The lack of an in-house capability for hardware systems design deprives the Department of the potential for improved efficiency and lower costs to be obtained from selection among separately priced elements of a computer system available from commercial suppliers, including independent peripheral manufacturers. This lack of capability also prevents the Department from promoting a higher degree of separate pricing and increased competition through the development by manufacturers of hardware elements with a broader interface capability. The potential losses from this lack of in-house capability will increase as the unbundling trend in the private sector continues. It is becoming increasingly important for the Department to have a capability to develop interface standards. In the continued absence of such a capability, the Department will be unable to keep its ADP policy sufficiently flexible to anticipate and take advantage of continuing changes in the ADP field.

There is no significant software systems design capability in the Department. Such capability as exists is widely dispersed and focused on narrow spectrums, usually tied to specific applications. As a consequence, no effective mechanism exists for development of more flexible languages, compilers, executive monitors, data storage and retrieval software, operating systems, translators and liberation programs, etc. Current practice makes the Department highly dependent on hardware manufacturers for design of systems software. The manufacturers have no incentive to provide increased flexibility to the Department

***Systems Design - Hardware**

This activity includes the design of the overall computer hardware system. This design consists mainly of the selection among equipment available from commercial suppliers including independent peripheral manufacturers. This activity will establish the necessary interfaces required to interconnect the equipment available from different suppliers. It is not anticipated that the Department will design its own hardware.

Systems Design - Software

This activity includes the design of basic systems software; i. e., Compilers, Executive monitors, Data Storage and retrieval software, "liberation programs," etc. It does not include applications programs or information systems.

In-House Capability

In-House capability to perform a function or task does not necessarily mean that the work be totally performed by Department employees but that some of the Department's employees must be able to perform the task. Where work is contracted to outside sources, the Department must have sufficient depth to evaluate the work of the contractor and make selections among alternatives.

which might increase the Department's independence of the supplier's particular machine and increase Department-wide compatibility of ADP programs.

C. Justification and Selection of ADP Equipment

The justification and selection of computers by the Department of Defense is controlled by procedures intended to assure that the computer is used for beneficial applications, and that the selection process provides the necessary capability at the lowest cost and promotes competition between vendors. The Assistant Secretary of Defense (Comptroller) and each of the Military Departments has prepared documents which establish these procedures.

Systems specifications basically consist of detailed information concerning the application which the computer will perform. This description can be as large as several thousand pages and includes each input-output and file description, estimates of the number of instructions in each program or sub-routine, the frequency of use of each sub-routine or program, the number of characters in each record, and the number of records in each file. The file descriptions also include whether the character is alpha or numeric.

If the computer is used for a new application, the effort required to complete the selection documents can be as large as the effort required to actually prepare the programs. The cost of this work is approximately the same as the actual cost of the equipment.

In addition to the descriptions of the inputs, outputs, and files, flow diagrams are required for each program or sub-routine. The descriptions are also used to determine whether a computer application should be approved. This system has not worked effectively and its use causes delays of two-to-three years in the procurement of the computer. In the past, the Department has even attempted to use this same procedure to obtain equipment to be used for research and development centers.

These descriptions are sent to the computer manufacturers and they then propose to provide equipment which will perform the work described and the Department often buys the lowest priced proposed system.

A major difficulty involved in the justification and selection process is the time required to complete the process and the difficulty of predicting the workload with sufficient accuracy to select the ADP system which most adequately meets the requirements over the life span of the equipment. The vast majority of estimates are lower than the actual workload by the time the system is operational, and this causes the system to be too small to perform all the required functions.

Perhaps the most serious flaw is that all this work is done to determine the best computer system for one particular process. If a broader approach were taken, an entirely different computer system might be able to accomplish that process and many others also on a more efficient basis at no increase in cost.

In many cases, the selection is made by personnel who have no first-hand knowledge of the workload, but depend entirely on the description of the applications.

This process has caused the Department some difficulties in the past, and in several cases the computer equipment selected by this process has been too small to carry the workload for even the first year. There is general agreement among Department personnel that the

procedures are too complex and time consuming, and limit competition between vendors.

In an attempt to reduce the problems inherent in these system specifications, the Department, at times, has used other means of computer selection. The primary alternative has been the use of the benchmark. A benchmark is a typical computer workload, either selected from the present computer workload or generated from a knowledge of the type of work the new computer will perform. These benchmarks require less time and effort than the system specifications to prepare, but they also require substantial investments by potential vendors for programming, debugging, and machine time for running these benchmarks. Difficulties result from the failure of most benchmarks to truly represent the actual computer workload. The same problems of estimating the workload during the system life exist for this method as exist for the system specifications approach. In general, forecasting the future is difficult and most likely incorrect, and computer workload forecasts are no exception.

The elapsed time between the preparation of the first documentation describing a computer requirement and the installation of the equipment varies between a minimum of two years and a maximum of six or more years. This time is used in the preparation of the justification documents, the system specifications, soliciting bids from vendors, evaluating proposals from vendors, and obtaining equipment. Often it is necessary to repeat one or more of these steps.

The computer workload is a dynamic and changing requirement and often by the time the computer has been installed, the workload is much larger and significantly different from the one anticipated at the time the computer procurement began. The time required to change the documentation is almost as long as the initial preparation. Therefore, often the requirement is not updated during the procurement cycle and the system effectiveness may not be as high as it could have been. If the Department is to have effective and efficient computer support of its missions, the time delays in obtaining computer support must be greatly reduced.

The current procedures result in major inefficiencies within the Department. The long delay times in obtaining new or replacement equipment result in equipment being kept long beyond its useful life. The determination of useful life should be based on the cost of performing work on the equipment, not on the age of the equipment.

Another major effect of the present procedures is the installation of several small and medium scale computers in the same geographical area. There are several locations which have over 50 computers. These multiple computers can result in costs which are as much as five times larger than would be necessary if a few large computers were used in a shared time operating mode.

If the Department had a system design capability, as previously discussed, the requirement for equipment could be stated in terms of the equipment's performance characteristics, rather than the specific planned application. The justification would be of the system, not of the individual equipment acquisitions, and the system could include many specific applications by today's terms.

D. Overall Management

The basic problem is that the present organizational assignment of responsibilities for

ADP policy formulation, management and operation is inadequate to insure the most efficient and economical use of ADP either Department-wide, or within a Military Department or Defense Agency. The organizational level of policy responsibility within the Office of the Secretary of Defense (OSD) for ADP is too low to insure that required and desirable policy changes are made and implemented consistently throughout the Department. In addition, there is no single office charged with the responsibility for long-range planning to keep policy abreast of industry development, and to provide flexibility in Department policy to take advantage of evolving technological changes.

Neither is any office charged with the responsibility for periodic review of existing ADP installations and operations or for minimizing the total cost of computers. Reviews are now focused on requirement justification and procurements. A standard for measurement of total ADP costs does not exist today, nor does the means of compiling such total costs for a given ADP installation or operation.

Present assignment of policy responsibility for ADP in OSD takes inadequate cognizance of the close technical and cost relationship of communications and ADP management. As a consequence, the interface between ADP and communications is inadequate, and will become increasingly inadequate as digital communications technology increases.

No office is charged with the responsibility to insure that research and development on ADP done by the Military Services or Defense Agencies, or under contract with them, is beneficially utilized Department-wide.

In addition, with the major change anticipated in the next ten years with respect to teleprocessing and digital data transmission, the management functions of telecommunications and ADP should be combined.

E. Other Factors

The following factors and resulting conditions contribute to the current problem within the Department and could be substantially improved if overall management responsibility were consolidated, if the Department developed a system design capability, and the justification and selection procedures were revised.

1. Utilization rates (estimated 50-60%) of computers owned and leased by the Department of Defense are low compared to those of industry. Low utilization rates are primarily due to the following:

(a) The long lead time for ADP procurements makes desirable the acquisition of growth capacity, but the specific applications orientation of requirements justification inhibits design for growth capacity. As a consequence, it is largely impossible to plan orderly matching of growth of requirements with growing capacity.

(b) Constraints on payment of overtime applied generally in the Department inhibit resort to longer shifts and increased utilization, since no mechanism exists to balance overtime costs against potential savings from increased utilization.

(c) Constraints on paying shift differentials, similar to those of paying overtime, inhibit the resort to three shift operations to increase utilization rates.

(d) Effective sharing between organizational elements is inhibited by existing regulations, which permit a facility owner to charge an external (Department) user only for direct charges and prevent the owner from charging rates based on total costs.

(e) Sharing is further inhibited by the orientation of procurement to specific applications. When a computer system is purchased for a specific application, it is likely to be the least costly for the specific application, and therefore, the least flexible for other applications. Consequently, sharing of the computer system is inhibited by the limitations of the computer system. This lack of flexibility of the system contributes to under-utilization.

2. There currently exist no standards for determining total costs of ADP service, within a given organizational element, a specific installation or Military Service, or Department-wide. Cost calculations do not now include cost of invested capital, depreciation estimates, elements of labor costs other than direct salaries, housing for installations, base support of computer personnel, air conditioning, etc. It is consequently very difficult to effectively make management decisions and trade-offs for existing and new applications.

3. The numbers of skilled technical professionals in the ADP field needed to plan, specify and design major applications are not available in the Department. The skilled technical ADP professionals available within the Department of Defense are scattered among several organizations within the various components of the Department. There do not appear to be adequate plans for obtaining or training these professionals in substantial numbers. In a rapidly changing technology such as ADP, personnel resources, in the absence of intensive training, tend to become obsolescent at the same rate as hardware resources, and a major effort is required to keep a staff current and competent.

In today's economy there are virtually no qualified ADP personnel who are unemployed. Large commercial organizations find that they must hire the basic talent, train it and specifically provide for keeping it current. The Department must determine the number and types of qualified ADP personnel it will need and provide the training resources necessary to assure their availability.

V-4 The responsibility for defense automatic data processing should be under the staff supervision of the Assistant Secretary of Defense (Telecommunications). The Assistant Secretary of Defense (Telecommunications) should: (a) take the necessary steps to enable the Department to develop an in-house capability for ADP hardware systems and software systems design needed for proper management; (b) review proposed ADP activities and monitor and evaluate on-going activities with respect to effectiveness of the utilization of resources; (c) test through model programs the feasibility of computer services/centers which could standardize and centralize the ADP system by functions (such as the major Commands) and/or geographically, with the intent of determining both short-and long-range ADP capability objectives; and (d) develop a training program for ADP specialists and a career plan for ADP personnel.

V-5 The procedures governing the justification and selection of computers should be revised to require a statement of ADP equipment capability as opposed to specification of intended application of the equipment.

III. Contract Studies

The purpose of contract studies is to provide a capability to the Department of Defense which is not available internally, either because it requires scarce or special skills required infrequently in any Departmental organizational element, or because independence and objectivity are a special concern. Those organizations who regularly provide contract studies frequently provide a transmission belt for ideas and information across the echelons of defense organizations.

Accurate information on the nature and extent of contract studies within the Department is difficult and often impossible to obtain. Large numbers of contract studies are performed for various elements of the Department of Defense by both profit making and not-for-profit private research organizations. There are, however, no central records of the studies that are done. It is not possible to go to one place in the Department or even a few places in each of the Services and get a tabulation of recent or on-going studies including subject, purpose, significant findings, cost or an assessment of the quality of the work.

There is no effective control of contract studies within the Department. While each study must be justified to get funding, there does not appear to be, at any point, an effective mechanism for establishing a relative need for the study, or for determining the extent to which the subject area has been studied previously. It appears from reviewing completed studies that many of them are not objective analyses to provide inputs to the decision process, but are rather performed to support positions known to be held by the contracting organizations.

The procedures used by the Department of Defense to contract for studies do not provide adequate safeguards to assure that the Department receives value for its expenditures. A study contract does not generally contain a stipulation as to the quality of the study to be made. The organization that wants to contract for a study works with a contracting officer, usually not a part of the organizational element wanting the study, and provides the information and justification required for the contracting. After the contract is let, the element for which the study is being done provides a technical representative who represents the contracting organization in the substantive areas of the contract study. The contracting officer and the technical representative frequently have little communication after the contract is let. The technical representative often is not consulted before periodic payments are made to the contractor. Most technical representatives are not familiar with contracting procedures, and even if they see that the contractor is not performing and will not produce a satisfactory product, they do not know what to do to protect the Department's investment.

Contracts for analytical studies tend to be let on the same basis as hardware production contracts. There is considerable evidence that they experience many of the same problems.

The low bidder is not always the best equipped to make the desired analysis. One major requirement should always be an objective analysis, but often contracts are let to contractors who have a direct interest in the outcome. By bidding low, they buy information which is used to obtain an advantage in a subsequent competition for hardware or software production. The contracting officers make too little use of their authority to exclude study contractors from subsequent production contracts.

The Federal Contract Research Centers (FCRCs) are a group of special nonprofit organizations created during and since World War II. Each has a special relationship with some agency of the Federal Government. There are currently 12 FCRCs under the sponsorship of the Department of Defense, with annual funding totalling about \$250 million. Based on their principal efforts, they are categorized as: (1) general and continuing research and experimentation in support of military research and development; (2) systems planning, systems engineering, and technical direction of systems development; and (3) operations analysis, systems analysis, general advice and analysis, and long-range military planning.

Originally every FCRC obtained all or most of its financial support from a single sponsor, but some are now attempting, with varying degrees of success, to diversify - to become less dependent on their Department of Defense sponsors, and in their view, less vulnerable.

The close ties between sponsor and FCRC often prevent the sponsor from seeking study assistance elsewhere to obtain work better suited to his immediate requirements. It would be highly desirable to provide flexibility, whereby a sponsor could on occasion have research done by another FCRC. That this would lessen the reliance of an FCRC on a single sponsor could only be beneficial. It would soon be evident which FCRCs were strongest and they would be encouraged to become capable of competing successfully within their own ranks.

Traditionally, there have been close relationships between most FCRCs and universities, and unquestionably the forging of this link to the academic community was a major reason for creating FCRCs. The changing attitudes of university administrations, faculties, and students have already resulted in the severing of a number of long-standing university-FCRC relationships, and others are in imminent jeopardy.

There is little doubt that each FCRC was, when created, the most effective or expedient means of providing certain required capabilities to the Department of Defense. However, both the needs of the Department and the character of some of the FCRCs have changed substantially. The Panel believes that this is an appropriate time to reassess the special relationship of each FCRC and its Departmental sponsor.

V-6 *The Secretary of Defense should delegate to the Deputy Secretary for Evaluation the authority to establish and enforce Department of Defense policies and procedures which make it possible to account for all contract studies to reduce duplication, assure relevance, and enhance quality. Specifically, the Deputy Secretary for Evaluation should:*

- (a) *Establish procedures to review and validate requirements for contract studies.*

(b) Establish a central control record of contract studies to include subject, purpose, cost, significant finding and an assessment of the quality of the work and the utility of the product.

(c) Establish procedures for contracting for studies to provide adequate safeguards to assure that the Department gets a product that is relevant and responsive to the requirement; assure a close working relationship between the contracting officer and the technical representative; and develop criteria for selecting contractors that will assure competent and objective support to the Department.

(d) Review each Federal Contract Research Center sponsored by the Department of Defense to determine on an individual basis which should be continued with substantially their present form and mission, which should undergo significant changes, and whether any may have outlived their usefulness as FCRCs. The study should also develop the means to make collective FCRC capabilities more widely available to Department of Defense sponsors.

IV. OFFICE OF CIVIL DEFENSE

In 1961 certain responsibilities for Civil Defense contained in the Federal Civil Defense Act of 1950, as amended, were assigned to the Secretary of Defense by Executive Order 10952. These responsibilities are currently assigned to the Department of the Army and specifically to the Office of Civil Defense (OCD).

The Act, as amended in 1958, includes in the Declaration of Policy the following:

"It is the policy and intent of Congress to provide a system of Civil Defense for the protection of life and property in the United States from attack. It is further declared to be the policy and intent of the Congress that the responsibility for Civil Defense shall be vested jointly in the Federal Government and the several States and their political subdivisions. The Federal Government shall provide necessary direction, coordination and guidance; . . . and shall provide necessary assistance as herein authorized."

Except for a period in 1962-63 when the fallout shelter program was given a high priority, the Civil Defense function has apparently been given little emphasis. There has been, since 1961, considerable discussion about the effects of dividing the Civil Defense responsibilities between the Executive Office of the President and the Department of Defense. This question is presently being addressed by the Executive Office of the President. The mission of the Civil Defense Organization is also being reviewed.

The present mission of OCD in the Department of the Army is essentially limited to the development and execution of a fallout shelter program and a communications and warning capability. The staff of OCD is divided roughly equally between the Army Department headquarters and the OCD Regional Offices which work directly with the Civil Defense organizations of the States and their political subdivisions. If, as a result of the present review of Civil Defense by the Executive Office of the President, the Secretary of Defense continues to be delegated responsibilities for Civil Defense, the Office of Civil Defense should not continue as a part of the Department of the Army Secretariat. The Office of

Civil Defense is primarily a line, not a staff, activity. Further, its mission is sufficiently different from and independent of the missions of the Military Departments that it should be established as an independent agency reporting to the Office of the Secretary of Defense.

The Office of Civil Defense, should it be retained in the Department of Defense, should be converted into a Defense Agency (the Civil Defense Agency), and the Director thereof should report to the Secretary of Defense through the Deputy Secretary of Defense (Operations).*

V. EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE IN DEFENSE CONTRACTS

Executive Order (EO) 11246, "Equal Employment Opportunity," was issued on 24 September 1965 and amended by EO 11375 in October 1967. Among its provisions are regulations (Part II) which require that government contractors and subcontractors take affirmative action to ensure that applicants are employed and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. This obligation applies to the entire company, and not just to the facility involved with the specifically contracted item.

The contractors are also required under the Order to:

1. State in all job advertising that all qualified applicants will receive consideration without regard to race, creed, color, religion, sex or national origin.
2. Give appropriate notice to the unions with which the contractor has a contract, advising the union of the contractor's commitment under the Order.
3. Comply with the Order and all rules, regulations and orders of the Secretary of Labor.
4. Furnish all information and reports required by the Order and permit access to books, records and accounts by the contracting agency and the Secretary of Labor.
5. Make reference to these commitments in all subcontracts and purchase orders so that such provisions shall be binding on each subcontractor or vendor.

The Order specified that the Secretary of Labor shall be responsible for the administration of Part II and this function was in turn assigned to the Office of Federal Contract Compliance (OFCC) which was established in January 1966.

The OFCC, among its various duties, designates which Federal agency will have contract compliance responsibility for individual contractors, so that each contracting agency is not required to separately administer the Order for every contractor with which it does business. This designation has been made by using the grouping of industries according to the Standard Industrial Classification (SIC) codes and the government agency designated is known as the Predominant Interest Agency (PIA).

*See Recommendation I-4.

The Department of Defense is the PIA for the following eleven industries:

1. Ordnance & Accessories
2. Textile Mill Products
3. Apparel & Related Products
4. Leather Products
5. Primary Lethal Products
6. Fabricated Metal Products
7. Machinery (non-Electrical)
8. Electrical Machinery
9. Motor Vehicles & Equipment
10. Miscellaneous Manufacturing
11. Printing & Publishing Industries

In addition, the Department agreed to perform the compliance activity for the National Aeronautics and Space Administration (NASA) which has been designated the PIA for Aircraft and Parts and Business Services.

The organizational assignment within the Defense Department for this area of responsibility has evolved over the years. Prior to October 1965, each of the Military Departments had its own separate contract compliance unit. There was also a Department-wide compliance unit for common-items procurement in the Defense Supply Agency (DSA). Each unit was organized and operated independently with its individual policies and procedures, causing a wide variance in implementation.

In November 1965, the contracts compliance programs were consolidated under the Assistant Secretary of Defense (Manpower and Reserve Affairs).

A second reorganization of the Department's contract compliance function was made in July 1967. It removed operating responsibility for contract compliance from the ASD(M&RA) and reassigned that responsibility to the Defense Contract Administration Service (DCAS, a component of DSA) which is responsible for the Department's contract management functions. This transfer was not a complete shift of responsibility. It did not include policy direction and guidance, which was retained by the ASD(M&RA).

The compliance review is the method of examining the Equal Opportunity Program of a contractor. The Contract Relations Specialists, usually GS-13s, begin a compliance review by conducting a community survey. Community surveys involve examining local labor market conditions with persons such as Urban League employment specialists, representatives of the local chapter of the National Association for the Advancement of Colored People (NAACP), officials of the state employment service, local religious or

community service leaders familiar with minority group job prospects, and spokesmen for organizations representing Mexican-Americans. Assuming that the review is not of a large facility where a team approach is required, the reviewer ordinarily spends four-to-five days in the contractor's locale, with the first day or half-day devoted to the community survey.

The initial visit to the job site is usually devoted to general discussions with the plant manager or the industrial relations director regarding the contractor's equal employment opportunity posture and recent affirmative action efforts. The specialist generally will have familiarized himself beforehand with the employer's latest employment data. Following the initial discussions, most specialists tour the contractor facility with a representative of the contractor. Subsequent discussions with the contractor deal in specific terms with major problem areas and whatever affirmative actions must be taken to place and upgrade larger numbers of minority group workers. The contractor and the specialist then draw up an agreement on new or accelerated affirmative action steps.

In May 1966, OFCC adopted a government-wide program of special compliance reviews called "Pre-Award" reviews. On all contracts and subcontracts of \$1 million or more, the OFCC requires that there be a comprehensive review of the potential recipient's employment system before the contract is awarded and that it not be awarded until the contractor is adjudged to be in compliance with the Order. Full reports on all pre-award reviews must be transmitted to the principal contract compliance officer of each contracting agency, which is required to transmit the report to the OFCC within thirty (30) days after the award is made.

The Department of Defense is the Predominant Interest Agency and/or responsible for review of 14,000 contractor facilities. OFCC Order No. 1, dated 24 October 1969, requires that by the beginning of fiscal year 1971, at least fifty percent of the assigned facilities will be reviewed annually. DCAS currently has a field staff of 149 persons (110 professional and 39 clerical). It is estimated that approximately 450 additional persons (345 professional and 105 clerical) will be needed for the Department to fulfill its review responsibilities.

The aspect of the Department's Contracts Compliance program which causes the most concern is the apparent conflict of the Equal Employment Opportunity and the procurement missions within DCAS. Procurement officers appear to view the contract compliance requirement as a hindrance in performing their primary procurement function. Since the contracts compliance program is essentially an audit function, the apparent conflict seems to be in the fact that the procurement people are auditing themselves. This conflict could be reduced by relieving the procurement people of the potential trade-off decision which might compromise the Equal Employment Opportunity requirements.

There are additional means, of course, of advancing the general objectives which underlie the Equal Employment Opportunity Contracts Compliance Order. There should be equal opportunity for employment for all races by contractors producing for the Department of Defense, but it is just as important that all persons have an equal opportunity, regardless of race, to be employers who contract with the Department of Defense. Procurement policies should not show preference to prospective contractors either on the basis of race, size or age of the prospective contractor as a business entity, among those capable of performing the needed service or supplying the needed materiel.

V-7 The Equal Employment Opportunity policy direction and guidance responsibility within the Defense Department should be under the staff supervision of the Deputy Secretary for Evaluation. A restudy and clarification of the requirement of the Office of Federal Contract Compliance and the penalties for noncompliance for the guidance of the Defense Contract Audit Agency and Defense Contractors should be obtained.

V-8 The implementation of the contract compliance program within the Defense Department should be assigned to the Defense Contract Audit Agency (DCAA). In order to fulfill its assigned annual review of contractors facilities, additional professional and clerical personnel should be assigned to DCAA.

V-9 Procurement policies should be so formulated as to insure that there is no impediment to participation by prospective contractors with the capability to perform, regardless of the race or size of the prospective contractor, or the period which the prospective contractor has been in business.

VI. EQUAL EMPLOYMENT OPPORTUNITY WITHIN THE DEPARTMENT OF DEFENSE

In recent years, considerable high level official attention has been directed at the matter of the Equal Opportunity Program of the Department of Defense. The matter has been studied in depth by, for example, the President's Committee on Equal Opportunity in the Armed Forces (the Gesell Committee), appointed by President Kennedy in 1963. Executive Orders and Secretary of Defense Directives have been issued by each recent President and Secretary of Defense, down to and including the present administration, which set forth comprehensive programs for assuring equal opportunity.

The record of implementation, however, leaves much to be desired. In fact, the responsibility for implementation is so diffused that in some areas it has proved to be ineffective.

Studies of the actual numbers of minority groups in various grades of both the civilian and military indicate that the percentages are far below what the Department of Defense considers to be reasonable in the companies with which the Department makes contracts for goods or services. This is particularly true in the officer group in the military and the civilian supergrades.

One area which calls for special attention is the relatively small percentage of minority officers in the Military Services. As shown in the appended tabulation, the number increased from 6,351 in 1965 (1.9% of the total), to 8,595 in 1969 (2.11% of the total). There was a decrease in the number and percentage of Negro officers in grades O-1 and O-2, but an increase in each higher grade. (See Table A).

Somewhat the same situation is shown in the statistics on enlisted personnel - a decline

TABLE A - NEGRO PARTICIPATION IN THE ARMED FORCES BY GRADE (AGGREGATE)
(1969, 1967, 1965)

	1965			1967			1969		
	Total	Negro	(%)	Total	Negro	(%)	Total	Negro	(%)
07-10	1,310	1	(0.1)	1,330	1	(0.1)	1,338	2	(0.1)
06	16,480	25	(0.2)	17,547	47	(0.3)	18,190	90	(0.5)
05	34,734	238	(0.7)	43,095	534	(1.2)	43,887	880	(2.0)
04	57,707	1,050	(1.8)	67,392	1,742	(2.6)	68,259	1,851	(2.6)
03	105,742	2,634	(2.5)	105,313	2,484	(2.4)	115,803	2,991	(2.6)
02	59,124	1,112	(1.9)	62,093	1,309	(2.1)	70,672	1,094	(1.5)
01	46,783	951	(2.0)	80,726	1,605	(2.0)	58,893	875	(1.5)
WO	16,178	340	(2.1)	24,582	613	(2.5)	30,790	812	(2.6)
Total	338,068*	6,351	(1.9)	402,078	8,335	(2.1)	407,847***	8,595	(2.1)
E-9	14,068	287	(2.0)	16,390	448	(2.7)	16,687	578	(3.5)
E-8	36,111	1,447	(4.0)	42,563	2,352	(5.5)	44,886	2,959	(6.6)
E-7	120,187	6,453	(5.4)	144,421	11,607	(8.0)	157,906	15,617	(9.9)
E-6	235,300	21,290	(9.0)	281,808	34,445	(12.2)	291,690	291,690	(13.1)
E-5	409,583	52,702	(12.9)	473,641	55,580	(11.7)	495,371	52,625	(10.6)
E-4	471,339	55,161	(11.7)	733,903	71,641	(9.8)	710,758	63,197	(8.9)
E-3	546,315	58,553	(10.7)	691,646	57,463	(8.3)	521,744	48,128	(9.2)
E-2	369,524	39,229	(10.6)	329,267	31,802	(9.7)	371,813	36,395	(9.8)
E-1	302,860	28,167	(9.3)	268,466	29,702	(11.1)	265,690	19,604	(7.4)
Gr. Unk**	177	10	(5.6)				134	17	(12.7)
Total	2,505,464	263,299	(10.5)	2,982,105	295,040	(9.9)	2,876,679	277,129	(9.6)
Grand Total	2,843,532	269,650	(9.5)	3,384,183	303,375	(9.0)	3,284,526	285,724	(8.7)

*Includes 10 Army officers with grade and race unknown.

**Army only.

***Includes 15 Army officers with grade and race unknown.

Source: Reports compiled by the Office of the Deputy Assistant Secretary of Defense (Civil Rights), 20 April 1970.

in the lower grades and an increase in grades E-6 and higher.

Effective implementation of the equal opportunity program of the Department can only be secured through personal and continued intervention by the Secretary, to the extent that all personnel of the Department become conscious of his scrutiny of the progress at all levels. The Secretary's intervention can take the form of requiring evaluations, frequent periodic reports and recording his satisfaction or dissatisfaction with the progress. A record of complaints and their disposition could be required by the Secretary. The Secretary should take whatever steps are needed to assure substantial improvement in the trends - in number and percentage of minority employment at all levels.

The accession of more officer personnel from minority groups would be implemented by increasing ROTC programs in predominantly Negro colleges.

Another useful approach lies in an expansion of the Junior ROTC program in the high schools. In this way, an opportunity would be provided young men, including minority children who come from broken homes, to get constructive training in leadership and discipline.

The entire approach to handling complaints of discrimination, and the procedures pertaining to their handling, need a review within the Department. Such a review must naturally consider, especially with regard to civilian employees, similar problems and programs in other branches of the Federal Government. If it is found that general policies conflict with policies or programs appropriate to the Department of Defense, appropriate changes in such general policies should be recommended.

If any general comment could be made concerning the existing overall Equal Employment Opportunity Program in the Department of Defense, it would probably be that it lacks central coordination and is designed for reaction rather than action. The tendency is to react defensively, or even more self-defeating, to attempt to disprove the complaint rather than learn what caused it and take appropriate steps to reasonably insure that other such complaints are not likely to occur. It does not lend itself to the insight which would cause introspection at all levels into why situations exist and what can be done to overcome and improve them.

Perhaps the most important part of an effective Equal Opportunity Program is the attitude of recruiters and supervisors. It does little good for the top people, no matter how sincere, to enunciate an equal opportunity policy, if a member of a minority group is greeted with a hostile attitude in the recruiting or personnel office, or with a supervisor who is unsympathetic to his human needs and aspirations to be given an equal opportunity for promotion all the way up the line.

Changes in attitudes in these areas are not likely to just happen - even if the President's or the Secretary's directives and messages get through, which is by no means certain. An intensive and effective training course is needed, to teach recruiters, noncommissioned officers, officers, and civilian supervisors the importance of helping minority groups and their white associates get along with each other.

To be effective, the responsibility must lodge in the regular line organization, not in some outside structure, and supervisors must realize that their own success in accomplishing these goals will have an important part in determining their own progress within the

Department of Defense. They must also appreciate that it is important not only for all such people as individuals, but also for the successful accomplishment of their mission and for the attainment of the Nation's basic goals.

This lodging of responsibility in the regular line organization does not conflict with the need for using professional equal opportunity personnel to design programs and advise the line organization, including OSD, regarding evaluation and monitoring of the programs.

While specialized equal opportunity personnel are used to some extent in the Department of Defense, many personnel who have equal employment opportunity responsibilities have no training or experience to qualify them for the positions at the time they are assigned. For the most part, this is an on-the-job training program. In some cases, the equal employment opportunity responsibility is an additional responsibility for personnel who have no interest in promoting the program.

V-10 An immediate evaluation should be directed by the Secretary of Defense as to the extent of minority employment and promotion in all areas of the Department; each administrative unit should be required to make frequent periodic reports to him of their progress in both qualitative and quantitative terms. The Secretary should personally review the trend of employment of minority employees at all levels, let it be known that he is personally doing this, and record with each unit his satisfaction or dissatisfaction with the progress made.

The Secretary should direct his staff to:

(a) Review the field of complaints in the military and civilian areas and the procedures set up for fair and expeditious dealing with them, and

(b) Establish an on-going affirmative action program to discover the reasons for complaints, remove them, and make sure that minority groups are in fact recruited and promoted on an equitable and nondiscriminatory basis.

Job descriptions should be established for equal opportunity personnel at all appropriate grade levels, and a career or progression ladder should be provided for equal opportunity personnel with appropriate grade structure commensurate with other priority programs.

V-11 Executive Orders and Department of Defense Directives with respect to matters of equal employment opportunity for Department of Defense military personnel, civilian employees and contractors, as set forth in the existing comprehensive programs for insuring equal opportunity, should be administered from a sufficiently high organizational level in the Department to assure effective implementation, and the procedures for assessing penalties for non-compliance should be reviewed and clarified.

VII. INDUSTRIAL RELATIONS

The labor and union-relations policies of the Department of Defense, both as to its own employees and its relations with the policies of employers with whom the Department has procurement or other contracts, are determined primarily by the policies applicable to the entire executive department of the Federal Government.

As this is such a vast field, and as it is not peculiar to the Department of Defense, the Panel did not study it in depth. However, to present a rounded picture, a few comments seem called for.

First, it is obvious that the Department of Defense could not operate efficiently without the whole-hearted cooperation of its own employees and the employees of its contractors. It must also do its part to maintain good relations with unions, whether they represent their own employees, employees of their contractors, or other employees whose cooperation is essential to the operations of the Department – such as transportation and construction workers.

Second, the Department of Defense is involved in such a large percentage of the contracts entered into by the Federal Government, that the Department's actions and attitudes have an important bearing on the relationships with labor of the Government as a whole. If it wants the cooperation of labor – working people and their unions – as it must, it is necessary, in turn, for it to be sensitive to the attitudes of labor.

Third, while the Department of Defense must operate under the terms of legislative mandates, executive orders of the President, rulings of the Comptroller General and others, it has the responsibility to point out to the appropriate authority any circumstances which seem to call for changes in existing procedures.

A number of cases were noted in which representatives of organized labor complained that the Department was contracting with employers who seemed to be deliberately thwarting national policies prescribed by Congress and the President. The Department replied that under existing regulations it could not on these grounds legally disqualify a prospective supplier.

V-12 The Department of Defense, although not expected to act as enforcement agency of national labor laws, should support any appropriate action that would permit more flexibility in such matters, so that contracts could be withheld from companies that have been determined by appropriate authority to have flagrantly, deliberately, and repeatedly violated expressed national labor policy. At the same time, the Department should not use its contracting powers to help or hurt any party involved in a union representation question, a collective bargaining agreement, or an inter-union dispute.

V-13 The objective of the Department of Defense, in determining wage rates for its own employees around the country, should be to have its rates fair and competitive with the

wage rates of private employers for employees of comparable skills.

VIII. DOMESTIC ACTION

The Department of Defense is so large that it cannot ignore the significant impact it has on the economy of the country. On the other hand, its basic responsibility of assuring the security of the nation is so vital, that it must be careful not to dilute its energies in other activities, however important.

There are areas where the Department is especially well-equipped to be helpful to minority groups. Two examples are:

First, the junior ROTCs at the high school level provide an excellent opportunity to give disadvantaged children, at their option, a chance to make up for the opportunities many of them have missed because they come from broken homes, and have not had the advantages of parental attention, training, leadership, and discipline.

Second, unused areas on defense installations in central city areas offer a possible opportunity to help offset the lack of open space and adequate physical facilities that limit the recreational resources available to minority youth in their areas. School facilities are usually unavailable at times other than school hours due to fear of vandalism. Yet, physical exercise and planned recreational activity are needs of youth everywhere.

The use of recreational facilities is the most direct approach to counseling of minority male youth. Experiences of the educational system and the sports world appear to support those who contend that youth who are hard to reach by authority figures respond well to competitive events and to the coach. A test should be made of this hypothesis by combining certain educational and social counseling with such activities.

Two possibilities for making such facilities available are: (1) use of unused areas on defense installations in central city areas; and (2) cooperative use of school playground facilities in after-school hours.

Such projects might more properly be within the province of the Department of Health, Education and Welfare (HEW). The Department of Defense's role, at least at the outset, might be to cooperate with HEW and the Office of Economic Opportunity to get such programs under way.

V-14 The Department of Defense should explore the possibilities of its making a contribution to community betterment through the expansion of junior ROTC and by making available unused areas on defense installations in or near central city areas for recreational use of minority youth.

V-15 A careful study should be made as to how the successful techniques developed by our armed forces in Vietnam to help rebuild communities could be applied to working with minority and other disadvantaged groups in this country, particularly in areas near military installations in central city and distressed rural areas.

IX. DEFENSE ATOMIC SUPPORT AGENCY

The Defense Atomic Support Agency (DASA), with its present organization and functions, represents an evolutionary growth of the Armed Forces Special Weapons Project (AFSWP), which was established in January 1947. AFSWP was a necessary consequence of the Atomic Energy Act of 1946, which terminated the Manhattan Project and created the Atomic Energy Commission. Established by a joint directive of the Secretary of War and Secretary of the Navy, AFSWP was described therein as ". . . a joint Army-Navy, atomic energy organization which will discharge all military service functions relating to atomic energy . . ." With the formation of the U. S. Air Force later in 1947, AFSWP became tri-service; however, its mission and functions were unchanged. In 1959, AFSWP was redesignated the Defense Atomic Support Agency. The Director, DASA, reports to the Joint Chiefs of Staff for military command, to the Secretary of Defense for technical matters, and has direct liaison with all Department components, the Atomic Energy Commission, and certain other organizations.

When AFSWP was established as an interdepartmental agency, the individual services had no capabilities in the nuclear field, and atomic warfare was a new and mysterious activity. Initially, AFSWP consisted of those Army and Navy personnel who had been on duty with the Manhattan Project. During the years since then, the Services have achieved substantial capabilities, as the use of nuclear power has expanded and as nuclear weapons programs have grown.

Originally the AFSWP-DASA charter was very broad (" . . . discharge all military service functions relating to atomic energy . . . "); however, this mission has been modified and reduced in scope from time to time during the intervening years. Early directives generally limited its functions to providing technical, logistics, and training support to the Services in the field of nuclear weapons. However, the 1959 charter establishing DASA as an independent activity reporting to the Secretary of Defense through the Joint Chiefs of Staff also assigned it the function of supervising defense nuclear weapons test activities.

Department Directive 5105.31 prescribes the current mission of DASA, which has remained substantially unchanged since 1964. According to this charter, DASA is to provide support to the Secretary of Defense, the Joint Chiefs of Staff, the Military Departments, and such other Department components as may be appropriate, in matters concerning nuclear weapons, nuclear weapons effects, nuclear weapons testing, and such other aspects of the defense nuclear program as may be directed by the Secretary of Defense. The Director, DASA, is responsible for the consolidated management and direction of these nuclear programs, and also for providing staff advice and assistance to them and other related nuclear matters to the Secretary of Defense, the Joint Chiefs of Staff, the Military Departments, and other Department components as appropriate.

The Charter also provides that staff supervision of DASA for the Secretary of Defense should be exercised by the Joint Chiefs of Staff, the Director of Defense Research and Engineering, and the Assistant to the Secretary of Defense (Atomic Energy).

By 1952, AFSWP had reached its peak strength of more than 11,000, which included about 1,800 civilians. When DASA was established as an independent Defense agency, strength had declined to about 8,800, and it has been diminishing fairly steadily since that time. At the end of FY 1970, DASA will have slightly more than 4,000 assigned. This reduction has been almost exclusively in military personnel; civilian strength has remained remarkably stable over two decades.

Currently DASA consists of a Headquarters located in the Washington area and four subordinate commands, as follows:

- Field Command: Sandia Base, New Mexico
- Joint Task Force Eight: Sandia Base, New Mexico
- Test Command: Sandia Base, New Mexico
- Armed Forces Radiobiology Research Institute (AFRRI): Bethesda, Maryland.

Joint Task Force Eight, which in recent years has been maintained as a nucleus for a task force to conduct atmospheric nuclear tests, if resumed, is scheduled to be deactivated on 30 June 1970.

Unquestionably some elements of DASA are assigned to it simply because DASA exists. If DASA did not exist they would just as readily, and often more logically, be a part of some other organization. Two examples are cited below:

1. The Armed Forces Radiobiology Research Institute (AFRRI). AFRRI was chartered in 1961 as a joint agency of the three military departments, subject to the authority, direction, and control of the Secretary of Defense and under the management control of the Secretary of the Navy. In 1964, AFRRI was assigned to DASA as an operational field element. As a medical research laboratory, it would more properly be under the joint control of the Service medical elements.

2. Sandia Base Army Hospital. This hospital is under the operational control of and is budgeted for and funded by DASA. It is staffed and operated in accordance with the directives of the Surgeon General, Department of the Army, and does not provide any services that are peculiar to the DASA mission. There seems to be no good reason why this hospital should not be transferred to the Army.

Department Directive 5105.31 sets forth a large number of functions which DASA is charged with performing. The Director, DASA, has indicated that he considers the following to be the most important functions now assigned to DASA:

- a. Research and testing of nuclear weapon effects;
- b. Support of limited Test Ban Treaty Safeguards;

- c. Coordination for the Department with AEC on nuclear weapon research, development, production, surveillance, and testing;
- d. Formulation for JCS of requirements for development of new nuclear weapons;
- e. Management of national nuclear weapon stockpile;
- f. Nuclear weapon storage and maintenance; and
- g. Nuclear weapon technical training.

Coordination and management of the research and testing of nuclear weapons effects clearly require joint attention. These functions currently account for about 75% of DASA's funds. It should be noted, however, that DASA does not perform in-house research, but rather contracts for it, based upon service-generated requirements. Testing could be done by individual Services, but this would undoubtedly be inefficient. It would be more appropriate and efficient for DASA's test functions to be transferred to the Defense Test Agency.

Supporting limited test ban treaty safeguards currently requires only a small amount of effort and the program is being deemphasized.

DASA is unnecessary as an overall Department coordinator with the AEC. The Services should coordinate directly on matters concerned with their individual weapons development, and the Assistant to the Secretary of Defense (Atomic Energy) should coordinate for the Office of the Secretary of Defense. The formulation of requirements for the development of new weapons could and should be done by the combatant forces. DASA constitutes an unnecessary channel which can only contribute to delays and misunderstandings.

In its responsibility for nuclear stockpile management, DASA provides operating elements to the Organization of the Joint Chiefs of Staff which function as an integral part of the National Military Command System. In addition to maintaining information on the status and location of nuclear weapons, these elements have been assigned the responsibility for collecting and displaying information regarding the Single Integrated Operational Plan, both as to the plan and the results of its execution. They also have other functions that fall entirely within the current responsibilities of the Joint Chiefs of Staff in their delegated role as operations staff for the Secretary of Defense.

Nuclear weapons storage and maintenance can be adequately done by the individual services. No special agency is required for this function.

Nuclear weapons technical training can also be adequately conducted by the individual Services - and, in fact, most of it is now being so conducted.

The Defense Atomic Support Agency should be disestablished and its current responsibilities and functions, to the extent that they should be continued, reassigned to other elements of the Department as appropriate.*

*See Recommendation I-9.

X. THE MILITARY INDUSTRIAL COMPLEX

Among the more relevant issues which bear on many facets of the Panel's study are the role, the sufficiency and the incentive of the industry on whom the national defense is dependent.

The so-called "military-industrial complex" has become a matter of major concern to Americans in the decade since President Eisenhower named and described it in this excerpt from his farewell address to the nation in 1961:

"Now this conjunction of an immense military establishment and a large arms industry is new in the American experience. The total influence – economic, political, even spiritual – is felt in every city, every state house, every office of the Federal Government. We recognize the imperative need of this development. Yet we must not fail to comprehend its grave implications. Our toil, resources and livelihood are all involved; so is the very structure of our society.

"In the councils of Government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.

"We must never let the weight of this combination endanger our liberties or democratic processes. We should take nothing for granted. Only an alert and knowledgeable citizenry can compel the proper meshing of the huge industrial and military machinery of defense with our peaceful methods and goals, so that security and liberty may prosper together.

"Akin to, and largely responsible for the sweeping changes in our industrial-military posture, has been the technological revolution during recent decades.

"In this revolution, research has become central; it also becomes more formalized, complex, and costly. A steadily increasing share is conducted for, by, or at the direction of, the Federal Government.

"Today, the solitary inventor, tinkering in his shop, has been overshadowed by task forces of scientists in laboratories and testing fields. In the same fashion, the free university, historically the fountainhead of free ideas and scientific discovery, has experienced a revolution in the conduct of research. Partly because of the huge costs involved, a government contract becomes virtually a substitute for intellectual curiosity. For every old blackboard there are now hundreds of new electronic computers.

"The prospect of domination of the nation's scholars by Federal employment, project allocations, and the power of money is ever present - and is gravely to be regarded.

"Yet, in holding scientific research and discovery in respect, as we should, we must also be alert to the equal and opposite danger that public policy could itself become the captive of a scientific-technological elite.

"It is the task of statesmanship to mold, to balance, and to integrate these and other forces, new and old, within the principles of our democratic system - ever aiming toward the supreme goals of our free society." . . .

This quotation is often referred to out of context - almost always omitting the sentence: "We recognize the imperative need for this development." Also, the "military-industrial complex" has become the "military-industrial-labor-academic complex." Clearly our national defense capability is contingent on the vigor of our industrial research, development, and production capability.

A significant consideration in shaping overall national defense policy should be to endeavor to create or maintain adequate, but not excessive, incentives to assure that industrial contractors exist who are willing to compete for defense business, recognizing that the participating contractors must be able to compete for manpower and capital. This is particularly necessary in fields of advanced technology, where substantial research and development costs must be incurred, sometimes without a high probability for a successful result. On the other hand, it must be recognized that in some industrial fields, there has been and is now an excess industrial capacity and number of prospective contractors competing for particular types of defense business.

The very size of our military budget inevitably has a massive effect on our society as a whole and its traditional goals. While as a percentage of Gross National Product, the military budget has been generally declining,* it still represents large sums.

The Panel has not been asked to examine the level of military expenditures, nor is it qualified by composition or study to offer advice on this critical matter, but we believe it is our responsibility to comment on other interfaces between the Department of Defense and defense industry that have given rise to concern, namely: (1) the need for effective civilian control; (2) the size of profits under defense contracts; and (3) conflicts of interest.

(1) The most important of these is the need for effective civilian control, so that any tendency of a "military-industrial complex" to expand beyond the levels necessary for the security of the country can and will, in fact, be curbed. The recommendations in this Report considered this concern and were aimed at reassuring that the decision-making powers are in the hands of the duly constituted civil authorities in the legislature and executive branches of the Federal Government.

(2) Concern with the military-industrial complex often appears to be founded on a belief that defense contractors make large profits, and that the desire for profits leads them to press for ever larger defense budgets.

Some years ago, there were instances of excessive profits on defense contracts. However, the rate of profits has been declining and there are now instances where profits are abnormally low or non-existent. In recent years, the only conclusion that can be reached from available evidence is that no charge of generally excessive profitability can be supported. Furthermore, renegotiation requirements applicable to defense contracts afford reasonable protection against possible excessive profits.

Profits, which constitute the principal incentive for industrial organizations, cannot be effectively adjusted to influence the level of competition for defense business by an approach based only on the average profits of large contractors or small contractors. The

*1955, 10.9%; 1960, 9.1%; 1965, 7.5%; 1970, 8.2%; projected for 1971, 7.1%.

approach must deal both with the level of profits for all industry necessary to compete for capital, and the level of profits in each particular industrial field.

To formulate such a policy will not be easy; but the attainment of the objective can never be reached unless the first step is taken, which is to make the adjustment of incentives for industry to compete for defense business a continuing consideration in forming overall defense policy. In addition, of course, there must be careful monitoring of the profit level on individual contracts to make sure that the levels are not generally higher than necessary to attract the number of contractors, large and small, needed to fulfill the requirements.

To keep the whole subject in perspective, it is important to note that the amounts paid for research, development, and procurement are large in dollars, but still represent only a portion of the total defense budget. Even within this portion, profits are a relatively small proportion of the costs - less than 10%. Too much attention to profits can divert attention from the much larger elements of costs, quality, and performance. Costs other than profits can vary much more than the entire amount of defense profits, depending on the productivity of defense contractors and the effectiveness of their management and of the management of the Department of Defense. Implementation of the recommendations made in these latter areas can, it is believed, result in large savings over a period of years, and at the same time produce improvements in quality and performance.

(3) A full discussion of the subject of conflicts of interests follows in Chapter VI.

XI. EXTERNAL RELATIONS OF THE DEPARTMENT OF DEFENSE

The activities of the Department of Defense, and its relationships to other parts of the Executive Branch, the Congress, the general public and to representatives of foreign powers require a continuing, significant level of attention and manpower of the Department.

Relations within the Executive Branch

The reinstitution of a formalized National Security Council (NSC) process has had a significant impact on the Department of Defense.

The stated purpose of the NSC process is to establish, through a series of national security policy studies on major issues, all the pertinent facts, complete with pros, cons, and costs, to bring to the President a full range of choices. To accomplish the studies directed by the NSC, the Departments, and particularly the Department of Defense, must provide masses of information, and also provide representation on the working groups of the NSC. In 1969, a total of eighty-five National Security Study Memoranda (NSSMs) were issued.

The Assistant Secretary of Defense (International Security Affairs) is assigned primary responsibility for the interface of the Department of Defense with the National Security Council, and for providing staff support to the Secretary of Defense in his role as a member of the NSC, and to the Deputy Secretary of Defense in his role as a member of the Under Secretaries Committee.

In October 1969, the Defense Program Review Committee (DPRC) was added to the NSC system. DPRC membership consists of the Assistant to the President for National Security Affairs (Chairman), the Under Secretary of State, the Deputy Secretary of Defense, the Chairman of the Joint Chiefs of Staff, the Director of Central Intelligence, the Chairman

of the Council of Economic Advisors and the Director of the Bureau of the Budget. Although its operational functions and procedures are not yet clear, one of the DPRC's stated purposes is to aggregate and relate the demands on national resources from the private sector, and from both the domestic and foreign military areas of the public sector. It is generally assumed that the DPRC will conduct a broad examination of proposed defense programs for future fiscal years some time before these programs are jointly reviewed by the Department of Defense and the Bureau of the Budget.

Although the DPRC is a part of the NSC system, the Assistant Secretary of Defense (Systems Analysis) is currently assigned responsibility to provide staff support to the Deputy Secretary of Defense in his role as a member of the DPRC.

The Joint Chiefs of Staff (JCS), in practice, are represented separately from the Department of Defense, throughout the NSC structure. This is appropriate to the statutory role of the JCS as principal military advisors to the President.

In addition to his responsibility for providing the primary staff support to Departmental officers on NSC matters, the Assistant Secretary of Defense (International Security Affairs) has the responsibility for providing the interface between the Department on international security affairs and the State Department and other elements of the Executive Branch of the Government. There is some evidence that the differing organizational structures of the Defense and State Departments may inhibit somewhat the close working relationship of the two Departments. This factor was considered in connection with recommendations made on changes in OSD organization, and implementation of these recommendations should improve the potential for a more workable interface between Defense and State.

Although the ASD(ISA) has responsibility for staff support to the Secretary of Defense on all international security affairs, the Department of the Army is assigned principal responsibilities relating to both the Panama Canal Zone and the Ryukyu Islands (Okinawa included). There is evidence of inadequate coordination on matters involving these areas by the Department of Army with the ASD(ISA), and through the ASD(ISA), the NSC and State Department. Assignment of principal responsibility for this area to the ASD(ISA), with the Department of Army providing support as necessary, would materially improve the ability of the Executive Branch to deal effectively with matters relating to these geographic areas. Special problems relating to both involve matters far broader than the interests of the Department of Army or even the Department of Defense, although the interests of the Department of Defense appear paramount within the Executive branch.

There is a demonstrated need, not met by existing organizational elements within the Department, for interchanges of information between the Department and the public, or elements of the public, on a wide range of matters, including but by no means limited to community relations, labor relations, equal opportunity, etc. The officials of the Department do not have the time to maintain, on a continuing basis, the dialogue with the numerous segments of the public which feel the need for exchanges of information and opinions with the Department. This need could best be met with a standing group created for this purpose.

V-16 The Assistant Secretary of Defense (International Security Affairs) should be assigned staff supervision responsibility for matters relating to the Panama Canal Zone and the

Ryukyu Islands, in lieu of the Secretary of the Army.

V-17 *The Secretary of Defense should appoint a General Advisory Committee to the Secretary, which is widely representative, to serve without compensation, but provided with a small staff to:*

(a) *Advise the Secretary of Defense, at his request, on matters concerning internal management of the Department that could be of special public interest, such as: (1) opening, closing or consolidating military installations; (2) community relations; (3) labor relations; and (4) contract compliance and equal opportunity;*

(b) *Serve as a vehicle through which matters included in the preceding paragraph could be brought to the attention of the Secretary of Defense by interested parties from outside the Department.*

XII. MILITARY INSTALLATIONS

The Department of Defense has over four hundred and fifty major military installations in the United States, which are administered through the Military Departments. These installations represent a large composite real estate holding and have a significant replacement value when improvements are considered. For example, in the ten counties of southern California, the composite real estate holding is approximately 4.7 million acres of land, with improvements having a replacement value of nearly \$10 billion, exclusive of land.

Originally, most of these installations were considered not to be in conflict or competition with their surroundings, and in many cases had a favorable and significant economic impact on the immediate community. Today, however, in many metropolitan areas, the economic input from a substantial military installation is of much lesser interest to both community and political leaders. Skyrocketing land values now often suggest to the community that the military installations could be more productive to the community if they were utilized differently.

Another major factor affecting military installations today is encroachment due to urbanization of the areas surrounding these installations. In some cases, such as airfields, this encroachment has drastically reduced the operational capability of the installations, or seems certain to do so in the near future.

With the announced projections for reductions in the size of the military establishment, fewer facilities will be required, even when allowances are made for future expansions to meet emergencies. Consolidation of military activities at fewer installations would produce substantial savings, and would often contribute to more efficient operations. Such consolidations would frequently require expansion of a facility or installation. Both the necessary flexibility and desired incentives for such consolidations could be provided by permitting the Defense Department to use all or some portion of the proceeds of sales of facilities to construct additional facilities required by the consolidation, and specifically

authorized for construction by the Congress.

There is needed the flexibility and authority for the Department of Defense to: (1) in some cases, take economic advantage of land values, while benefiting the community; (2) in other cases, improve and assure for the future, the availability of operational capability when needed; and (3) consolidate activities to reduce the number of installations operated. One of the major impediments to effecting this today is the difficulty of obtaining funds for military construction. There is no legal method, at present, whereby a Service may sell an installation and use even a part of the proceeds to build a new one or to expand an existing one.

V-18 A procedure should be authorized by statute whereby all or part of the proceeds from the disposal of existing military installations can be used for construction of a new installation or for expansion of an existing one when such construction or expansion has been authorized by Congress. These transactions should in no way affect the normal general appropriations.

XIII. PHYSICAL SECURITY IN THE PENTAGON

Access to the Pentagon is not controlled during normal duty hours. From 1800 to 0730 hours a Pentagon building pass must be displayed while in the building and to gain access or egress. The physical security of the building is the responsibility of the Department of the Army, and guards are provided by the General Services Administration.

Each organization occupying space in the building is responsible for protecting its own classified information. There does not appear to be any established criteria for determining which activities should be located in areas with controlled access. Many organizations have consolidated their organizational elements which deal with sensitive materials in one area of the building and control access to that area. Some control access to all their space. The majority of the individual offices in the Pentagon, however, are in areas of the building where the general public has free access during normal duty hours.

The elements of the Office of the Secretary of Defense deal with very sensitive information; yet, none of them is located in an area of controlled access. They are all open to the general public and each individual must protect the materials he possesses.

Each of the Military Departments has provided controlled access to its Operations Center, some or all of its intelligence activities, and other highly sensitive activities.

The Joint Chiefs of Staff control access to all their spaces. Access can be gained only by displaying a JCS pass or by prior arrangement with a JCS pass holder to provide an escort while in the area. The National Military Command Center is in the controlled access area of the JCS, but is further controlled with its own guard force and passes.

The JCS, by restricting access to all their space, have tended to inhibit the interchange

that should take place between the Joint Staff and the Office of the Secretary of Defense.

It appears that some activities, such as the elements of OSD handling very sensitive materials, need greater physical security than they now have, while others, like some elements of the JCS, have greater protection than is required.

It is recognized that physical security is not a free asset. It usually involves an initial outlay for modification of the facility and a continuing cost for guards. While it might be desirable to control access to the Pentagon building, the cost would probably be prohibitive, especially with presently declining budgets. It does appear necessary, though, to make one office responsible for determining which activities should be provided with greater physical protection, and how such protection should be obtained.

V-19 The responsibility within the Pentagon for determination of criteria for various levels of physical security to be provided for organizational elements should be consolidated under the staff supervision of the Assistant Secretary of Defense (Intelligence).

CHAPTER VI

CONFLICTS OF INTEREST

I. INTRODUCTION AND SCOPE

Because of the importance of maintaining the integrity of Department of Defense personnel and the confidence of the public, the standards of conduct required of past and present members of the Department of Defense were examined. This chapter sets forth the Panel's findings and recommendations in this area. Incidents of bribery, graft or other criminal conduct were not investigated inasmuch as the various investigative and enforcement agencies appear to be adequate to cope with such criminal activities.

For study and discussion, the personnel of the Department of Defense were grouped into the following classes:

- a. Retired Officers and Former Employees;
- b. Current Officers and Employees;
- c. Personnel connected with Nonappropriated Fund Activities; and
- d. Consultants and Advisory Committees.

II. RETIRED OFFICERS AND FORMER EMPLOYEES

For some time, there has been Congressional concern* with the possibility of a retired military officer exercising undue influence over his former colleagues in government on behalf of a defense contractor. Similar concern exists with respect to former Department of Defense civilian employees who have joined the defense business, since their ability to exercise undue influence is at least as great as that of retired officers, and in the case of former high officials, probably much greater. Although such former civilian employees are subject to certain legal restrictions, there are very few data available on this subject and, in the limited time provided, the Panel was unable to devote as much detailed consideration to this aspect of the problem as was possible for retired military officers.

The increasing number** of retired military officers is compounded by several socio-economic factors. Generally, military officers retire at a relatively early age and expect to have twenty or more useful years remaining before attaining the normal age associated with withdrawal from the labor force. At the same time, because of the number of dependents which the average retiree must support, there are strong economic incentives to take a civilian job to supplement his income, since the amount of his retirement annuity is insufficient either to support his family, or to maintain an established standard of living. The military retirement system itself has the effect of "pushing out" an eligible member

*105 Cong. Rec. 9742 (1959);

Report of Subcomm. for Special Investigations, House Comm. on Armed Services, pursuant to H. Res. 19, 86th Cong., 1st Sess (1959); Hearing before Senate Comm. on Armed Services on H. R. 10959, 86th Cong., 2d Sess (1960).

**Report of the Task Force on Military Compensation (1967).

after as few as 20 years of service in order to retain a youthful military organization.

In a study of retired servicemen seeking second careers, the Bureau of Social Science Research made certain findings.* While it found that an individual's educational level had the greatest effect on his second career opportunities, it seemed also that few of the military skills acquired by those surveyed were directly translatable to the civilian job market. Although many of the officers and enlisted men questioned would have preferred federal employment after retirement, a significant number dismissed this possibility as unacceptable because of the restrictions of the Dual Compensation Act.**

In 1969, the Department of Defense (in response to an inquiry from the Chairman of the Senate Armed Services Committee) compiled data concerning the types of employment of retired officers in the higher grades (06-10). The number of such officers employed by the 100 largest defense contractors comprised only about 5% of all the retired officers in the upper grades and only a minute .27% of all retired military personnel.

Based on the foregoing, it appears that retired military personnel (a) leave the service at an early age, (b) normally seek a second career, (c) frequently have difficulty in translating military skills into comparable civilian skills, and (d) do not tend to cluster around military-related industries.

The current statutory restrictions*** upon the dealings of a retired officer with the Department of Defense vary according to inter alia (a) the length of time retired, (b) the degree of his former Department of Defense relationship to the subject matter, (c) his status as a Regular or Reserve officer, (d) his capacity as a representative of another rather than dealing in his own behalf, and (e) the kind of activity, with specific prohibitions against "selling" to the Department of Defense.

In analyzing the applicable statutes, it was concluded that a number of changes may be desirable to effect more reasonable and equitable treatment of all retired personnel. For example, the so-called "selling statutes" (18 U.S.C. 281 and 37 U.S.C. 801(c)) reflect the need for reexamination.

First, they apply only to Regular officers; Reserve officers similarly situated are exempted.

Second, under the pay-forfeiture statute (37 U.S.C. 801 (c)), both representation of others and selling on one's own behalf are barred, while under the criminal statute representation by a retired officer of another is prohibited, but a sale on his own behalf is not.

Third, under 18 U.S.C. 281 the officer is restricted for life from selling to the department from which he retires, while under 37 U.S.C. 801(c) the restriction lasts only three years.

*Monthly Labor Review, January and February 1967.

**5 U.S.C. 5532.

***18 U.S.C. 201-218; 18 U.S.C. 281 and 283; 27 U.S.C. 801 (c).

Fourth, under 18 U.S.C. 281 the sale of services is prohibited, while under 37 U.S.C. 801(c) the sale of services is permitted.

Fifth, under 18 U.S.C. 281 the restriction applies only to the department from which the officer retired, while under 37 U.S.C. 801(c) the restriction is Department of Defense-wide.

Sixth, the concept of "sale" under 18 U.S.C. 281 is so vague, both as to what activities constitute selling, and the points at which a sale commences and is completed, as to raise serious constitutional doubt as to its validity as a criminal statute.

Finally, neither statute covers leasing activities.

The efficacy of 18 U.S.C. 281, with its criminal sanction, may be questionable. Only one inconclusive prosecution* was brought under it. On the other hand, the pay-forfeiture statute (37 U.S.C. 801(c)) has been vigorously applied, with the Comptroller General rendering numerous interpretive rulings** which are helpful to disbursing officers in determining whether an officer's retired pay should be withheld because of selling activities in violation of the law.

Implementing the statutory restrictions, the Department of Defense requires retired Regular officers to file and keep current an accurate DD Form 1357, a form of disclosure designed to establish whether the officer is in compliance with the anti-selling statute. This form not only causes the retiree to reflect upon the restrictions on his activities but also, depending upon its accuracy, provides an administrative basis to determine the extent of compliance and the extent of pay forfeitures in the event of violations. A new law, to be effective on July 1, 1970, and affecting former and retired officers and civilian employees, is intended to strengthen the disclosures obtained from such persons employed by defense contractors. With certain exemptions for those employed with smaller contractors, those in a low salary bracket, and those who departed from the Department of Defense more than three years previously, the failure to submit a required report is a misdemeanor. In addition, the Secretary of Defense will have to consolidate the data and report to Congress each year.

To examine the magnitude of problems, if any, posed by the employment of retired officers in defense industries, the activities of a ten percent sample*** of the retired

*United States v. Gillian, 288 F.2d 796 (2d Cir. 1961).

**See e.g., Ms. Dec. Comp. Gen. B-167407 (8 Aug 1969); 42 Decs. Comp. Gen. 236 (1962); 42 Decs. Comp. Gen. 87 (1962); 42 Decs. Comp. Gen. 642 (1962); 40 Decs. Comp. Gen. 511 (1961); 38 Decs. Comp. Gen. 470 (1959); 41 Decs. Comp. Gen. 799 (1962); 41 Decs. Comp. Gen. 642 (1962).

See e.g., 41 Decs. Comp. Gen. 677 (1962); 39 Decs. Comp. Gen. 366 (1959).

***The list of retired officers used in this study was supplied by the Department of Defense. The names of the individuals were obtained by the Department by writing to the 100 largest defense contractors and asking that they supply lists of the retired colonels and general officers employed by them, and by then verifying those lists against the official retired rolls of the armed forces. The ten percent sample was supplied by an official of OASD (I&L), who had earlier requested that each military department supply him with a ten percent random sample of the retired officers of that department contained on the master list. Unfortunately, the method by which the random sample was to be compiled was not specified, and the military departments did not in turn supply information as to the methods used in selecting the officers. Therefore, one is unable to state categorically that the sample is truly random. However, the sample was subjected to a number of tests, and there was no evidence of any bias in the sample actually submitted.

Colonels/Navy Captains and General and Flag officers employed by the 100 largest defense contractors were studied.

In fiscal year 1969, the total number of retired Reserve and Regular officers in these grades was 37,945, of which 1,973 (about 5%) were employed by the 100 largest contractors. Of those so employed, 129 were General or Flag officers. Of the officers in the sample, Tables I and II of this section show the length of retirement, and the distribution of those employed by the top 100 contractors.

Of the 11 firms shown in Table II, at least eight are concentrated in aerospace work, and they employed 94 of the 98 officers. In 1969, these firms employed about one-half of the officers in the sample, were awarded 47% (\$12.2 billion) of the prime contracts received by all of the top 100 contractors (\$26.2 billion) and accounted for 31% of all defense contracts (\$38.8 billion). Clearly, a few firms - primarily in the aerospace business - employ most of the retired senior officers engaged in defense work.

From the available background data on the officers in the sample, an examination was made of the extent to which these officers accepted employment by contractors with whom they had had official dealings while holding a military position in which they could have influenced the award or administration of a contract. There were two such cases, each involving a plant representative who had been stationed at a plant operated by his future employer.

To obtain data for determining the extent of influence which retired officers in the industry could exert with the Department of Defense, questionnaires were sent to 115 officers in the original sample, and 85 answers were received. (The subjective nature of information so acquired was recognized.)

The following characteristics and attitudes were observed from the responses:

1. Most of the officers stated that they were motivated to post-retirement employment for economic reasons - for additional compensation either to support dependents or to maintain an established standard of living.
2. Fully two-thirds of the officers indicated they would have considered or accepted federal employment but for the Dual Compensation Act.*
3. Only 15 stated that they were recruited for their jobs while the others obtained employment through friends or "beating the bushes."
4. About 30 indicated that their former duties or positions with the Department of Defense were directly related to their present functions.
5. Most evidenced only a vague understanding of the conflict of interest statutes, Directive 5500.7 and the implementing regulations. Many expressed resentment of them as impugning their honor, and very few expressed an understanding that the rules may have been intended to prevent the appearance as well as the fact of conflicting interests.

*5 U.S.C. 5532.

Table I
LENGTH OF RETIREMENT OF OFFICERS IN SAMPLE
AS OF 30 JUNE 1969

	ARMY	NAVY	MARINE CORPS	AIR FORCE	TOTAL
0-2 years	8	16	6	40	70
2-3 years	7	5	0	12	24
3-5 years	7	10	2	8	27
5-10 years	20	20	1	4	45
over 10 years	6	13	1	3	23
Retirement date unknown	1	0	0	1	2
TOTALS	49	64	10	68	191

Table II
DISTRIBUTION OF OFFICERS IN SAMPLE
AMONG TOP 11 DEFENSE CONTRACTORS

	ARMY	NAVY	MARINE CORPS	AIR FORCE	TOTAL
General Dynamics	0	8	0	4	12
Lockheed Aircraft	2	7	1	9	19
General Electric	0	0	1	0	1
United Aircraft	1	0	0	1	2
McDonnell Douglas	5	0	1	7	13
Am. Tel. & Tel.	1	1	0	0	2
Boeing Co.	0	4	2	14	20
Ling Temco Vought	0	0	0	7	7
N. Am. Rockwell	1	0	0	9	10
General Motors	1	0	0	0	1
Grumman Aircraft	1	6	2	2	11
Total:	12	26	7	53	98

6. All seemed to understand fully the pay forfeiture provision, and commented unfavorably on it, advocating its repeal or extension to Reserve officers.

7. As to the prohibitions on "selling" activities, several stated that a lifetime prohibition was unnecessary, upon the reasoning that contacts and non-public knowledge dissipate rapidly after retirement.

In addition to these, the responses offered several judgments about the usefulness of retired officers with respect to employability:

1. That the skills which are translated from the military into industry are mainly managerial skills.

2. That former contacts, rank and position within the Department of Defense have little, if any, value to them or their employers in their new jobs and, in some cases, can even be a handicap.

3. That the knowledge acquired of the Department of Defense procedures, organization and requirements was a great aid in the performance of some industry jobs; e.g., knowledge of jargon, key positions, technical requirements and procurement procedures.

To isolate possibility of influence on the procurement process the 85 responses were sifted to eliminate officers retired more than three years, and those whose industry job description were unrelated to the procurement process. This screening left 45 officers whose questionnaires, together with their job descriptions, indicated that the possibility of their affecting some aspect of the procurement process could not be entirely ruled out.

Among these 45 officers there were 13 in executive or management positions, 14 managers of specific weapons systems, 13 engineers, scientists and system analysts, 3 concerned with internal logistics in support of specific defense contracts, one Congressional lobbyist, and one officer in charge of testing military aircraft. The following statistics were also determined:

1. 28 were presently working or had previously worked for their employer on specific defense contracts.

2. 28 (not exactly the same persons as above) were either recruited or obtained their positions through friends.

3. 25 were from the Air Force, 10 from the Navy, 8 from the Army and 2 from the Marine Corps.

4. 6 were General or Flag officers (3 Air Force, 2 Army and 1 Navy).

5. 28 (not exactly the same persons as above) were employed by the 11 defense contractors who receive almost half of all the business awarded to the top 100 contractors.

6. 6 of these retired officers are no longer with their former defense-contractor employer.

The number 45 may be put into perspective. It comprises 63% of the officers returning questionnaires who have been retired less than three years and who were in a position possibly to affect some aspect of the procurement process. Fifty-seven officers in the original ten percent sample could be deemed to be in similar circumstances by extrapolation. Five hundred and seventy of the 1,973 retired senior officers were employed by the top 100 defense contractors. This analysis serves only to provide an estimate of the number of such senior officers who might conceivably have some effect, however remote, on the award or administration of a contract. From these data, no determination can be made as to the extent of actual influence which has been or is likely to be exerted by this class of officers.

It is suggested that the nature of the procurement process should be considered in evaluating the potential for undue influence. In the case of major procurements, the collective judgment of numerous individuals and boards is an essential part of the process. It is difficult to envision a retired officer who would have sufficient personal influence within the Department to manipulate the whole process.

There is no record or evidence known to the Panel of attempts by retired senior officers to exercise influence with respect to the award or administration of contracts. There may well be incidents, but the potential for successful and meaningful exploitation of conflicts of interest does not appear significant.

No less than for retired officers, the potential to influence the procurement process may exist among former high-level civilian officials who join (or return to) the industry doing business with defense. These persons may develop close relationships at the Secretarial level where an official could have the power to affect directly a procurement decision. Until the passage of the recent statutory amendment (to be effective July 1, 1970), such officials had no post-employment reporting obligations, so that very little data are available.

Since 1958, 10 (about 8%) of the 124 Secretaries, Under Secretaries and Assistant Secretaries of the Department of Defense accepted employment with one of the 100 largest defense contractors and, of these, 3 had been employed by the same contractor prior to his appointment to a position in the Department. A much higher ratio applies to the group of Directors, Assistant Directors and the Management Group in the Office of the Director of Defense Research and Engineering (DDR&E) during the same period. Out of a total of 101 such persons, 31 (about 30%) accepted employment with one of the top 100 contractors, and 16 of these were returning to their previous employer.

It should be emphasized that there is no record or evidence of attempts by former Presidential appointees or former officials in DDR&E to exercise influence in the award or administration of contracts. DDR&E is a focal point in determining what kinds of weapons systems are developed, and, therefore, to a certain extent, by what contractors. Familiarity with this process would provide an insight into the direction of future weapons requirements which could be of value to a defense contractor. If the dominant consideration is avoiding any potential use of influence, or the appearance of influence, there is no justification for treating former high-level civilian employees any less restrictively than retired senior military officers.

Generally, two fundamental approaches have been used to deal with potential conflict of interest situations: (a) the imposition of prior restraints on classes of personnel, that is, prohibiting classes of personnel from engaging in specified categories of legal activities to

preclude the opportunity for them to commit specific undesired acts; and (b) the prohibition of specific activities, enforced by the imposition of administrative or criminal sanctions for violations.

In view of the relatively low probability of incidents involving retired or other former employees in conflict-of-interest situations, and because prior restraints on classes of personnel adversely affect the attractiveness of military careers or government service by professional civilians in the Department of Defense, the emphasis of conflict-of-interest statutes and regulations should be directed toward prohibition of and punishment for specified undesired acts, rather than toward prior restraints.

Any proposal to bar entirely the employment of retired officers (or former civilian employees) by contractors should be rejected as excessive. Also excessive would be any proposal to bar such employment for a "cooling-off period," except perhaps in the case of plant representatives accepting positions with the company to which they were assigned.

Further across-the-board changes are not necessitated by the present circumstances. Any extraordinary problems should be handled on a case basis. To provide this flexibility, and to meet the need for respected and authoritative determinations as to what constitutes ethical behavior, a Board of Ethics might be established. The Board would provide advisory opinions upon request to all the past and present members of the Defense community and defense contractors on the propriety of particular relationships and activities.

To assure impartiality, the Board should be composed of five or more members, appointed from civilian life by the Secretary of Defense, with no more than three from the same political party. If a similar government-wide Board should be created, the responsibilities of the defense board could readily be assumed.

VI-1 Conflict of interest statutes (18 U.S.C. 281; 18 U.S.C. 283; 5 U.S.C. 5532; and 37 U.S.C. 801(c)) should be reevaluated in order:

(a) *To achieve consistency of application, equity of application, consistency of coverage and harmony of sanctions; and*

(b) *To reorient such statutes toward prohibition of and punishment for specified undesirable acts rather than toward prior restraints.*

VI-2 Consideration should be given by the Secretary of Defense to establishing a Defense Board of Ethics to provide advisory opinions upon request to past and present military and civilian members of the Department of Defense and to defense contractors on the propriety of specific activities.

III. CURRENT OFFICERS AND EMPLOYEES

Upon taking office, the Presidential appointees to the top 42 civilian jobs in the Department of Defense are subject to the same standards of conduct rules as other members of the Department. Prior to confirmation, they are also screened by the Senate Committee on the Armed Services which carefully scrutinizes the nominee's existing financial interests in order to avoid any apparent conflict of interest and, in certain cases, requires divestment of particular investments. On a case-by-case basis, the Committee has demonstrated some flexibility depending upon the nature of the contractor's business, the extent of the nominee's interest and the duties of his prospective position.

There has been concern that the Committee's policy of forced divestment, with the likelihood of harsh tax consequences, inhibits the recruitment of many highly qualified executives for top positions within the Department of Defense. Although the extent to which this policy actually has deprived the Department of executive talent cannot be documented, it certainly has been a restraint and undoubtedly has narrowed choices in recruitment. On the other hand, the policy requiring the absence or elimination of obvious and occasionally dramatic potential conflict is sound and necessary. There should be sufficient flexibility in administering this policy to allow a wise balancing of the competing public interests which are involved. While divestment may be required by the public interest, adverse tax consequences of the divestment provide no benefit to the public. Where divestment is required, harsh tax consequences might be avoided by amending the Internal Revenue Code to provide that such divestments qualify as involuntary conversions, the proceeds of which could be reinvested after leaving office without adverse tax consequences.

The standard-of-conduct-rules applicable to current officers and employees of the Department of Defense are derived from several sources.* The primary rules are the conflict-of-interest and related laws enacted by Congress and enforced through criminal sanctions. Congress has also promulgated a suggested "Code of Ethics" for Government employees. These rules are amplified by a Presidential Executive Order and by rules promulgated by the Civil Service Commission. While the existing restrictions establish minimum standards of conduct, the review focused upon certain deficiencies, overlaps, ambiguities and practices felt to deserve particular attention.

Various categories of personnel in the Department of Defense are not treated under the applicable statutes as the circumstances warrant. Exclusion of all enlisted personnel from the scope of the statute** appears untenable in view of the recently publicized NCO club scandal. Since inclusion of all enlisted personnel would be unnecessary and unwise, selective application to enlisted personnel by designation of function, rather than rank, presents a reasonable way of closing this gap. Similarly, Reserve officers on active duty may be classified in a number of categories, some of which provide various exemptions or lesser restrictions. *** It appears that the differences in the status of various Reserve officers create some deficiencies and ambiguity as to the applicable standards and, for fairness and uniformity, the statute should be clarified. The treatment of active Regular Navy and

*18 U.S.C. 201-218; Executive Order 11222, 10 May 1961; Rules of the Civil Service Commission in 5 C.F.R. 735.101-735.412 (1969); DOD Directive 5500.7, 8 August 1967 and multiple subordinate command regulations.

**18 U.S.C. 202(a).

***18 U.S.C. 202; 10 U.S.C. 1033.

Regular Marine Corps officers by the special restriction in 37 U.S.C. 801(a) seems to be unnecessary. These persons are subject to the whole array of basic standards of conduct as are the active Regular officers of the other services who are not similarly restricted. The status of employees of nonappropriated fund activities is not clear under the present law, but the need for the regulation of their conduct has been recently demonstrated.*

Implementing the legislation is Directive 5500.7, the regulation which incorporates the basic conflict of interest laws and establishes the rules for standards of conduct. In addition to setting forth the rules, the Directive provides an internal enforcement mechanism by imposing a requirement that certain high-level officials (GS-13/Major/Lieutenant Commander and above) occupying positions affecting the procurement process execute a confidential statement of employment and financial interest (DD Form 1555) and further requires that these forms be reviewed by attorneys to affirmatively determine the absence of a conflict of interest.

Directive 5500.7 differs from the rule of the Civil Service Commission in one significant aspect. Contrary to the Commission's rule**, it does not require that all employees be furnished with a copy of the pertinent regulations. This fact has been a matter of quiet controversy between the Department of Defense and the Commission for several years. The Department of Defense takes the view that such a dissemination would be unduly burdensome because of its many enlisted members and its overseas installations.

This basic Directive is implemented by the regulations of the Military Departments and the Defense Agencies and frequently supplemented by regulations of several subcommands and subordinate installations. At the highest command levels, no fundamental differences were noted, but neither is there any evidence that any attempt has been made to encourage or require universal adoption of the better rules, or any systematic cross-review by the services or agencies.

The multiple regulations which exist have created varying standards which are inconsistent with the basic Directive, or tend to create some distortion***, ambiguity**** or unwarranted diversity of treatment. The degree of such difficulties increases directly as it proceeds down the chain of command, and several recommendations are hereafter made with respect to dissemination of the rules for standards of conduct.

Through the use of the 1969 reports of field inspections by the Civil Service Commission and inquiries to a number of installations and activities selected according to mission, size and location, the administration of the rules for standards of conduct was investigated.

As for dissemination of the rules, it appears that the general tendency is to rely on a minimal routine distribution of written materials, or on calling attention to their availability and to expect self-familiarization by typical "read and sign" requirements. This process fails

*Report by Douglas H. Strahan, January 1969.

**5 C.F.R. 735.104(b)(2)(1969).

***See Army Materiel Command Reg. 600-6, Par. 7A and cf. Directive 5500.7 Sec. XV.A.4.

****See Army Materials Research Agency Reg. 600-3, 1 May 1967, concerning the acceptance of favors or gratuities from companies doing business with the agency.

to allow for the different categories of persons to whom the rules are addressed, the enormous quantity of written material which is generated in the Department, and the complexity of the rules themselves, all of which tend to render them incomprehensible to the individual who is supposed to abide by them.

Even if effective dissemination of the rules is assumed, their enforcement depends to a great extent on voluntary compliance of the individual, on the effective use of disclosure statements by supervisory and reviewing personnel, on the nature of the individual's duties rather than his rank, and, to a certain extent, on good investigative work which can play a useful role in detecting violations and in deterring potential violators. From questionnaires, interviews, and other available data concerning the several investigative branches within the Department of Defense, several conclusions are apparent:

First, the extent to which investigators are specifically trained in the investigation of standards-of-conduct problems is very limited.

Second, no system designed to discover violations of these restrictions exists within the Office of the Secretary of Defense, the Army, or the Navy. Only the Air Force maintains an office at Headquarters level equipped to provide advice and guidance to the field as to the procedure for standards-of-conduct investigations.

Third, no office queried has trained agents working full-time in the investigation of alleged standards-of-conduct violations, no Service knows the extent to which time is devoted to such investigations, and no Service knows the number of investigations conducted into this area or the number of violations uncovered and proven.

A special enforcement problem exists in connection with the Plant Cognizance Program whereby government employees are assigned to a contractor's plant in order to strengthen quality and cost controls. The obvious difficulty is the possible temptation for the individual to curry favor in the hope of future employment with the contractor. Less obvious is the difficulty of role identification. Because of the individual's direct and close relationship to the plant and its personnel, his judgment in any government/contractor dispute could be swayed in favor of personal attachments and unfavorably to the government. The Panel's investigation shows that these inherent difficulties may also be accentuated by a great lack of mobility* among such plant representatives.

Finally, a review of the general administration of the standards of conduct program for active personnel reveals that advisory, interpretive, and general administrative functions are frequently fragmented among different entities so that an effective and well-coordinated program is difficult to achieve. To establish both the appearance and substance of impartial administration, a number of administrative and procedural changes are desirable.

VI-3 In order to develop a more effective standards-of-conduct program applicable to

*Reply of Air Force Logistics Command to questionnaire from this Panel which shows, for example, four hundred eighty-eight employees (55%) of the Air Force contract management division's civilian personnel in the grade of GS-12 or higher have been at their present duty locations from five to ten years.

current officers and employees of the Department, consideration should be given to:

(a) Amending 18 U.S.C. 202(a) to provide that the terms "officer" or "special Government employee" shall for the purpose of Chapter 11 of Title 18, United States Code, include enlisted personnel occupying certain positions of trust as designated by the Secretary of the military department involved.

(b) Amending 18 U.S.C. 202(a) to provide that NAF employees as described in 5 U.S.C. 2105(c), shall be considered employees of the United States for purposes of Chapter 11 of Title 18, United States Code.

(c) Further amending 18 U.S.C. 202(a) to provide that a Reserve officer serving on extended active duty or active duty for training will be considered a special government employee only if he has been ordered to active duty for a period not in excess of 180 days, and that all other Reserve officers serving on active duty will be considered full-time government employees.

(d) Amending 10 U.S.C. 1033 to provide that it applies only to Reserve officers ordered to active duty pursuant to 10 U.S.C. 672(a), 673, or 673a (i.e., "involuntary" orders to active duty), and amend section 4(f) of the Military Selective Service Act of 1967 to limit its application to individuals inducted into an enlisted status.

(e) Repealing 37 U.S.C. 801(a) which applies to active Regular Navy and Regular Marine Corps officers.

(f) Amending the Internal Revenue Code to define divestments required of prospective Presidential Appointees as involuntary conversions, the proceeds of which divestments may be reinvested by the appointee within a time period which terminates after leaving office without there being a taxable transaction, but with the taxpayer's basis in the property so divested to constitute his basis in the reinvestment.

VI-4 The Secretary of Defense should consider making the following changes to Directive 5500.7:

(a) Rewriting the directive in the more lucid manner exemplified by AR 600-50 and AFR 30-30.

(b) Providing that re promulgation by the military departments and their subordinate commands will be limited to republication of the Directive in its entirety with the permissible addition by those agencies only of clarifying terms.

(c) Providing minimum standards for the effective and relevant dissemination of standards-of-conduct rules.

(d) Providing that the rendering of advice on standards-of-conduct matters shall be accomplished by deputy counsellors as much as possible.

(e) Requiring the designation by each command of a person of adequate authority who

shall have overall responsibility for administration of the standards-of-conduct program.

(f) Providing that the supervisor will retain a copy of the confidential statement of employment and financial interest submitted by the employee or officer covered in the directive and will forward a complete job description to the deputy counsellor along with the employee's DD Form 1555.

(g) Removing the civil service and military grade and rank limitations on submission of DD Form 1555, so that applicability is determined solely by job duties and responsibilities.

(h) Specifically providing that each member and employee will be given a simple and comprehensible summary of the standards-of-conduct rules upon acceptance of employment or entry on active duty.

(i) Limiting the "read and sign" requirements to personnel above the grades of GS-13/major or lieutenant commander.

VI-5 The Secretary of Defense should cause to be prepared and distributed a manual, to be continuously updated, for all the deputy counsellors containing digests of relevant opinions of the courts, the Attorney General, the Civil Service Commission, the Comptroller General, the Judge Advocate Generals, and the General Counsels of the Department of Defense and the Military Departments pertaining to standards of conduct. Prepare and distribute a short movie dealing with standards of conduct and require annual attendance for the first three years of service or employment in a job, or encompassing responsibilities, designated in Directive 5500.7 to necessitate filing of a confidential statement of employment and financial interest. Prepare and distribute posters calling attention to proper standards of conduct.

VI-6 The following steps should be considered among the means to insure the more effective investigations on conflict-of-interest situations:

(a) Expand Army procurement inspections to the scope of Air Force investigative surveys, and institute such surveys within the Navy and the Office of the Secretary of Defense.

(b) Require the Navy to coordinate its investigations into procurement fraud and standards of conduct with local judge advocate offices.

(c) Require the Army to submit its reports of investigation to the Department-level office having staff interest in the subject matter.

(d) Require that the Army and Navy institute procurement fraud courses including coverage of standards of conduct for investigators similar to that conducted by the Air Force.

(e) Require that each Service create a record-keeping classification for standards - of -

conduct investigations undertaken.

VI-7 To better insure against conflict-of-interest incidents in connection with the Plant Cognizance Program, the Department of Defense should:

(a) Limit tours of duty of civilian and military personnel stationed at defense contractors' plants to three years.

(b) Explore the possibility of proposing legislation which would prohibit a military or civilian member or employee assigned as plant representative from accepting employment with the company at whose plant he was last stationed for a period of three years from the termination of active service.

IV. NONAPPROPRIATED FUND ACTIVITIES

The reputation of the Department of Defense has been damaged recently by disclosures concerning breaches of standards of conduct by some employees of the various nonappropriated fund (NAF) activities supervised by the military. Historically, these activities have enjoyed a decentralized relationship to the Military Departments in performing their function of assuring adequate morale, welfare and recreation programs for military personnel and their families. While the Department of Defense has established broad policy guides affecting NAF activities, great latitude is afforded local commanders in creating, operating and controlling these instrumentalities.

The various types of NAF activities are substantial, both in the dollar volume generated, and the number of civilian, military and foreign personnel employed. Recent developments have emphasized that NAF activities are susceptible to abuses. Irregularities were discovered by the Senate Permanent Subcommittee on Investigations in its 1969 probe of the management of non-commissioned officers' clubs in Vietnam; by the 1969 survey of Douglas H. Strahan, an Army investigator, who found widespread abuses in bookings of commercial entertainment and other kickbacks received by personnel in the Vietnam theater; and by the Inspector General's 1968 investigation of the Qui Nhon open mess associations which found gross abuses and irregularities in purchasing and contracting procedures of the Vietnam club system.

With this recent background, the applicability and administration of the laws governing the officers and employees engaged in NAF activities were evaluated.

Whether employees of these activities are considered employees of the United States for the purpose of conflict-of-interest laws is somewhat doubtful. There is neither a statute nor a judicial decision which explicitly resolves the matter. Though there are private legal opinions which are affirmative, Title 18 United States Code, should be amended to assure applicability to NAF employees of the laws governing the standards of conduct of Federal employees.

In a questionnaire sent to various installations and activities, inquiries were made about the standards-of-conduct rules administered for NAF activities. Generally, the responses indicated that the situation is not distinguishable from that discussed in connection with current officers and employees of the Department of Defense. Cumbersome directives, routine dissemination and fragmented administration can hopefully be resolved by the recommendations suggested earlier. It should not be concluded that laxities that seem to have been tolerated in a war zone exist in long-established posts and bases in the Continental United States. However, the nature of open messes as essentially bars and restaurants seems to lend itself to improprieties by employees because of the difficulties of maintaining accountability.

As for the effectiveness of existing controls, sound management techniques such as separating the functions of purchasing, receiving, and the use of competitive bidding are lacking. While the exchange system has benefited from using principles of management in a quasi-corporate approach, the open mess system and sundry fund activities have not utilized this approach. Neither the exemption for enlisted personnel nor the grade limitation for civilian personnel disclosures are realistic in view of the lower grade levels of NAF personnel in procurement or financially responsible positions. Changes should be made in connection with the communication and enforcement of standards-of-conduct rules to parallel those for other current officers and employees. Commanders at all echelons should achieve a high level of control and supervision over open messes and other NAF activities through administrative inspections, in addition to regularly scheduled audits and general inspections.

VI-8 The following actions with respect to the employees of non-appropriated fund (NAF) activities should be considered:

- (a) *Retaining a professional management study group to review the operating procedures of the open mess system and other locally controlled NAF activities.*
 - (b) *Amending 18 U.S.C. 202(a) to provide that NAF employees, as described in 5 U.S.C. 2105(c), shall be considered employees of the United States for purposes of Chapter 11 of Title 18.*
 - (c) *Modifying the exemption of enlisted personnel from the conflict-of-interest law (Title 18) to authorize the service Secretaries to designate categories of enlisted jobs subject to that law.*
 - (d) *Abolishing the GS-13 equivalency level cut-off for filing financial disclosure statements under Department Directive 5500.7.*
 - (e) *Improving the dissemination of standards-of-conduct rules in NAF activities as recommended generally for current Department of Defense officers and employees.*
 - (f) *Holding administrative inspections of subordinate NAF activities in addition to regularly scheduled audits and personal inspections.*
- *****

V. CONSULTANTS

The possibility of a conflict of interest may arise for a Consultant, just as it may for more permanent personnel of the Department of Defense. Such persons, whether on a full or part-time basis, provide advice to officers or agencies of the government, but do not engage in operational functions. While the advice of these experts can be extremely valuable to the Department, in many instances the Consultants have related private interests which could conflict with the interests of the Department.

Consultants associated with the area of research and development are in particularly sensitive positions and, from the data reviewed, it appears that:

1. A substantial number of scientific and engineering Consultants are drawn from the largest defense contractors.
2. Although they do not make actual decisions, these Consultants are in positions to influence weapons development and, implicitly, the kinds of defense contractors who could benefit thereby.

The 1962 revision of the conflicts-of-interest laws appears to provide generally reasonable limits on the activities of Consultants. Several administrative deficiencies exist, however, which should be rectified.

The Civil Service Commission, in 1953, discontinued on-site inspections to determine whether or not each Consultant has a conflict of interest, and now relies upon a quarterly report. The departments and agencies have not filled this gap, and certain procedural safeguards have been omitted. The use of quarterly reports as an external control by the Civil Service Commission has resulted in some ambiguity and misunderstanding of the internal controls which the departments should exercise. An inconsistency in the requirements for current disclosure statements, and the omission of safeguards in the event of a change in the Consultant's duty assignment, are both matters of administration which should be reexamined. In addition, it appears that when consultant services are obtained by a contract with a firm, its employees are not covered by the rules for standards of conduct, even though the potential for the appearance of a conflict can be as great. In this case, a qualified requirement for a contract clause similar to that used to require security clearances is suggested.

VI-9 The following actions with respect to Consultants should be considered:

- (a) *Clarification of the applicability of the disclosure requirements and of the necessity for determining the absence of a conflict.*
- (b) *Initiation by the Department of Defense of on-site inspections to establish administrative compliance with the restrictions upon Consultants generally and with special emphasis upon those in positions of high level research and development.*
- (c) *Revision of Department of Defense Directive 5500.7 and the implementing regulations concerning Consultants to require:*

(1) *Supplementary statements reflecting changes in financial interests under certain conditions.*

(2) *A redetermination of the absence of conflict of interest whenever the validity of a prior determination is jeopardized by reassignment.*

(d) *Requiring contract financial disclosure statements from the personnel of consulting firms where deemed necessary in the public interest.*

CONCURRING STATEMENT OF DR. GEORGE J. STIGLER

Because of the scope of the Report, and the short time available for review of it by the Panel, I wish to emphasize that general agreement with the Report does not preclude my disagreement or uncertainty with respect to many detailed recommendations and much of the language of the Report. One may question the wisdom of the Panel's decision to embark upon so encyclopedic a review of the immense economy of the Department of Defense within a time limit of one short year. The following comments differ in emphasis more than in position from the Report:

1. No organization can achieve or maintain efficiency in structure or operation by having a critical review made by expert outsiders once each five or ten years – even if, contrary to the experience of previous surveys of the Department of Defense, the recommendations of the review panel are unfailingly adopted. A good organization must have built into its very structure the incentives to its personnel to do the right things.

The administrative problems posed by the Department of Defense arise in good part because (a) its professional corps has a strict hierarchy which more often punishes than rewards criticism and innovation at lower ranks, (b) its central product – military efficiency – cannot be easily measured in peace time and therefore rewarded by larger appropriations and more rapid promotions, and (c) many of the prices put on its inputs (conscripted troops, rent-free land, etc.) are wholly incorrect measures of the scarcities of these inputs.

2. Competition between the military services should in general be encouraged rather than deplored. This competition is a major element of civilian control, and I do not place a low value on the fact that of the major powers only the United States and Great Britain have avoided military takeovers in the last 200 years. This competition is also a source of strength in discovering good and bad weapons and tactics; for example, we would not have a respectable rifle if the Army had kept sole control of the weapon. Even a limited amount of duplication of function is part of a prudent national policy.
3. The hierarchical structure of the Services is necessary to discipline and the coordinated control of large numbers of men, but it is not necessary to innovations in techniques nor is it even favorable to civilian review and control of the military establishment. To these ends it is essential that the Secretary of Defense be advised and informed by a civilian staff capable of discovering the real controversies within a Service and of advising on the division of functions and resources among Services. This civilian staff, largely concentrated in Systems Analysis, simply cannot be taken out of the main center of decision-making without depriving the Secretary of Defense of the capacity for independent decision-making. The Secretary will not turn over the direction of military forces to this civilian group (if he did, they would have to be put in uniform). But the Services have no right to reject independent review of their top-level decisions, and the nation cannot afford to give final power to them. (I may add that I fully

approve of extensive Congressional review of the operations of the Department of Defense.)

4. The vast, horrendously expensive, weapon systems which now consume so large a part of the budget of the Department of Defense may be our saving or our downfall. The great difficulty is that presently we do not know. Operational testing is almost non-existent in the weapons acquisition process. The recommendation of the Report that systematic operational testing be introduced deserves highest priority.

DISSENTING STATEMENT OF ROBERT C. JACKSON

Herewith is my dissent to the Blue Ribbon Defense Panel Report, including my recommended organization chart for the Department of Defense.

I consider the following quote from page 16 of the Panel's Report to be very important and use it to set the stage for my comments:

"In retrospect, the evolutionary approach to reorganization of the Department of Defense, while falling significantly short of the objectives of organizational and management purists, and at the same time overriding the inhibitions of the organizational traditionalists, has, on the whole, served the Nation's interests well. A more revolutionary approach to military reorganization might have destroyed values inherent in the traditional military organization which have been worth preserving. Even more significant, revolutionary changes would probably have seriously disrupted the operation and reduced the effectiveness of U.S. military forces during a period when the world situation necessitated maintenance of credible military power."

Previously I have made several recommendations for changes in the Panel's Report and indicated the reasons therefor. Although I am still not in agreement with a number of facets of the report, I will, however, limit my dissent to three important areas.

The first is - the idea recurrent throughout the report that the JCS organization and function as now constituted is not and cannot be wholly responsive to the requirements of the SecDef, and that an additional staff organization, under a Deputy/Under SecDef, is required solely for Military Operations, thus limiting the JCS principally to planning activities.

The second is - the Panel's citation of deficiencies relating to the Unified Command organization and the proposals to correct the situation, i.e.:

- to create another command echelon consisting of strategic, tactical, and logistics elements to be organizationally situated between the Unified and Specified Commands and the Washington level.
- to merge the Southern, Atlantic, and Strike Commands into a Reconstituted Strike Command.
- to require that Component Commanders be made Deputies of the Unified Commanders in order to strengthen the Unified Commander's authority.

Finally, the proposal to submerge the identity of the Service Secretaries under a new Under Secretary for Resources.

As presently constituted, the JCS system permits Service views to be expressed as a necessary protection against unilateral thinking and the adoption of a one-sided strategic concept. The existence of differing points of view in the Joint Chiefs of Staff and their ultimate melding into strategic guidance and policies are not evils to be abolished, but are healthy values to be preserved.

The present JCS organization and procedures are designed to ensure precise, careful determination of the best military strategy and necessary strategic guidance for the Armed Forces. This requires careful examination of all alternatives. It is important to note that in generating strategic guidance, quality rather than speed is necessary. Better solutions result from thorough consideration of differences of opinion. Planning decisions should be made only after all aspects of complex strategic problems have been examined.

Operational decisions, on the other hand, usually require a more rapid decision making procedure than do strategic problems. It is my understanding that operational decisions have been made during the Vietnam war principally by the Chairman of the JCS acting on Joint Staff advice, and on most occasions the Chairman acts without consulting the Chiefs. At the same time, if the Chairman feels an important policy is involved, he can, and frequently does, conference the Chiefs by telephone in a matter of minutes. However, I recommend that the Chairman of the JCS have a four star officer to assist him. This would relieve the Chairman of the day to day detail, make it possible to delegate functions, and generally result in faster decision making for operational matters. I recommend that the Director of the Joint Staff be advanced to four star rank and be designated Director of the Joint Staff and Deputy Chairman.

It is important to differentiate between the planning problems which require mature consideration and the operational decisions which can be made very rapidly. In my opinion the Joint Staff and the Joint Chiefs of Staff do have the flexibility necessary to make decisions or to submit proposals to higher authority within the time limit required.

It is quite necessary to have a military operations command unit in Washington and it should be composed of the best qualified officers available. However, to set up another staff to handle operations while the Joint Staff of the JCS concentrates on planning and other advice to the Secretary would create untold problems. For example, it is most difficult to separate planning from operations. Where does planning stop and operations begin? What part of logistics is operational logistics?

Two separate Joint Staffs at the national level would create a highly unsatisfactory situation. I believe it would be chaotic to set up another large military staff in Washington to parallel the work now done by the Joint Staff of the JCS. Therefore, I recommend that the Joint Staff continue the operations function, that the Chairman or his four star Deputy, acting for the JCS, continue to report direct to the Secretary of Defense, and provide the channel of communications from the President and the Secretary of Defense to the Unified Commands. I recommend that the great responsibility of the Chairman of the Joint Chiefs of Staff position be recognized by making the Chairman a five star officer.

The second theme in this report with which I do not agree is that which finds some vague deficiency in the Unified Command organization which, according to the report, makes it necessary to form an ad hoc organization to meet each particular crisis. It is indicated that an examination of the missions of the present commands and some of the specific problems reveal that the present structure is not effective and probably would have to be radically changed to support a major war effort.

To correct this presumed deficiency the Panel recommends a drastic reorganization of the Unified Commands now existing and the insertion of another command echelon between the Unified and Specified Commands and the Washington level. This new command echelon would consist of a Strategic, a Tactical, and a Logistics Command.

I do not concur with the proposal to form a Strategic Command, a Tactical Command, and a Logistics Command. While the present structure of the Unified and Specified Commands could be improved by some consolidation, the present setup does work and is responsive. Nothing could be more cumbersome than a structure into which all of the Armed Forces were assigned in accordance with the determination that they were strategic or tactical. The present Area Commands were formed after mature consideration. They work well in practice. There is no revolutionary change in the art of warfare that requires them to be altered in a radical way. This proposal would add another echelon between the combatant commanders and the JCS with more large staffs, headquarters, communication requirements, and a proliferation of directives when the Armed Forces are submerged in directives already.

Strategic direction must come from the JCS level with direct and close supervision from SecDef. At present the JCS provide strategic direction, with the Unified and Specified Commanders responsible for implementation of JCS directives. The Single Integrated Operating Plan provides optimum integration of committed forces. The national strategic targeting and attack policy provides supplemental strategic direction. Assumption of additional responsibility by a newly created Strategic Command would only duplicate functions now performed by the JCS and the Unified Commanders, and quite possibly would result in unsafe, uneconomical, and inefficient operations. It is highly important to have direct and rapid communications between the JCS and the operational command in an emergency situation and a new intervening command echelon would tend to increase communications time to an unacceptable degree. These are only a few of the reasons why I cannot concur with the proposal to form a Strategic Command.

What would be gained, for example, by marrying three completely diverse operational elements - the Strategic Air Command, Continental Air Defense Command, and the Polaris Submarines into a so-called Strategic Command? What would it do better than the present set-up? Would it improve the readiness or the wartime control? Readiness of submarines, for example, involves complex and expensive maintenance systems, specialized training, and operation in a manner which takes into account all the other elements below the surface, on the surface, and in the air that have means of detecting submarines. These functions are now performed by the Atlantic and Pacific Fleet Commands. The proposed command echelon would tend to hinder rather than improve their performance. Similarly, coordination of targeting is accomplished by the Joint Strategic Target Planning Group in Omaha in a most satisfactory manner and does not require the assistance of the newly proposed command echelon. However, this new command grouping would create a demand for a mammoth staff, so economy certainly cannot be the objective.

The formation for a Tactical Command is even less useful. CINCPAC, CINCLANT and CINCEUR combine area geopolitical knowledge with a command and control system needed to operate military forces in the area. Direct contact with the JCS makes for rapid decision-making. I am unable to imagine what duties would be assigned to the so-called Tactical Command. It would insert another echelon to slow up decision-making and, of course, as with the Strategic Command it would certainly create a demand for a mammoth staff, a large headquarters, and a proliferation of communication systems.

I do not concur that the Southern Command function should be reconstituted in the Strike Command. The Strike Command has become an Area Command by virtue of the responsibility it has been given for the Middle East and Africa. I would recommend consideration of the following: that the responsibilities for the Middle East be transferred

to CINCEUR; responsibilities for Africa be transferred to CINCLANT; and the Strike Command be disestablished; that the Southern Command be transferred to the Atlantic Command.

The Atlantic Command, in addition to its very important national function, is closely related to the Allied Command Atlantic, one of the two major NATO commands. CINCLANT is also the Supreme Allied Commander Atlantic. The CINCLANT and SACLANT staffs, both situated in the same compound at Norfolk are closely interrelated. To disestablish the Atlantic Command would be a major downgrading of the United States' contribution to the NATO alliance. And this would take place at a time when the President is trying to reassure our NATO allies of the permanence of the United States commitment.

I do not concur that the Component Commanders should be made Deputies of the Unified Commander in order to strengthen the Unified Commander's authority. This is not necessary as the Unified Commander now has full authority over the Component Commanders; this applies to all matters affecting the operations of his assigned forces. His channels of authority are clear and unmistakable. The Unified Commander can exercise his command through his Component Commanders or through a subordinate Unified Commander; he can set up a Special Task Force; or he can exercise command directly, as he desires. This decision is one in which the Unified Commander has full freedom of action. The Unified Commander also has logistics responsibility. He can assume it as he feels necessary. The Component Commanders are not the dominating factor in the Unified Command structure. The Unified Commander is as strong as he wants to make himself. The law should be re-examined and made sufficiently clear so as to strengthen the Unified Commanders' charter and to provide him the necessary authority to exercise command in every field that affects the performance of his assigned forces, including logistics and personnel matters. The Unified Commander, responsible to the SecDef, with immediate access to the SecDef if he wants to use it, to the Chairman of the Joint Chiefs of Staff, and to the members of the Joint Chiefs of Staff, has a great deal of power. For the above reasons I believe the present structure is satisfactory and do not agree that the Service Component Commanders should be redesignated as Service Deputies to the Unified Commanders.

The Logistic Systems of the three Services are certainly large, as would be expected since each Service is many times larger than the largest U.S. corporation. The Services have resisted integrating these supply systems into a single system for good reason. They recognize that a functioning logistics system is essential to efficient combat operations. Most do not believe that combining these three systems into one would improve efficiency. The Assistant SecDef for Installations and Logistics should provide measures to achieve maximum coordination as a means of promoting efficiency and economy without complete integration. Other Assistant SecDef, e.g., for Computing and for Communications can do this and therefore SecDef for I&L should also be able to. In regard to Transportation, MATS and MSTS should remain assigned as they now are with coordination achieved through the JCS and the Assistant SecDef for I&L. I do not believe that complete integration of supply, maintenance, and transportation functions for the support of Unified Commanders can improve the effectiveness of logistics support, nor will it achieve great efficiency and economy. Overall, therefore, I am not in agreement with the proposal to establish a Logistics Command.

Finally, I am concerned at the proposed derogation of the three Military Departments of the Army, the Navy and the Air Force. The legislative history of our National Security Act makes clear that Congress intended each of the Departments to be separately organized

under its own Secretary, subject to control, direction, and authority of the Secretary of Defense.

The Service Secretary should serve the Secretary of Defense as a responsible assistant, exercising the necessary control over his Service. Service Secretaries symbolize and give genuine meaning to the term "civilian control of the military." Each Service is dedicated to this fundamental American principle, and would lose traditional identification as an organic body if the authority of its Secretary were assumed by an individual who represented all Services, or who would be imposed in the chain of command between the Service and Secretary of Defense.

The Services are not alike. The retention by each of its separate character, customs, and confidence is essential to the preservation of our national military power. The first requirement of our unified military establishment is the moral soundness of each of its integral parts. I feel that further reduction in the role of the Service Secretary moves us closer to an undesirable over-centralization, and could be a prelude to the merging of the Services - a concept with which I strongly disagree and which is contrary to law. For these reasons, I recommend that no change be made in the vertical relationship between the Service Secretaries and the Secretary of Defense.

The Panel by inference recommends that the Office of Deputy of Secretary of Defense be eliminated. I believe that in an organization as large as the Defense Department it is essential that the Secretary of Defense have a Deputy who is senior to all other Secretaries in the Defense Department, be they Assistant Secretaries, Under Secretaries, or Deputy Secretaries.

The Panel recommends a Long Range Planning Group to provide staff support to the Secretary of Defense with responsibility for long range planning which integrates net assessment, technological projections, fiscal planning, etc. The Panel further recommends a coordinating group to assist the Secretary in coordinating the activities of the entire Department. The Panel also recommends a Net Assessment Group to conduct and report on net assessment of United States and foreign military capabilities and potentials. I believe these three groups should be assembled under an Assistant Secretary of Defense for Long Range Planning, Coordination, and Net Assessment. This Assistant Secretary would report directly to the Secretary/Deputy Secretary of Defense.

I recommend that the present Assistant Secretary of International Security Affairs be renamed Assistant Secretary for Political/Military Affairs and that he report directly to the Secretary/Deputy Secretary for Defense.

Since I am opposed to an Under Secretary for Operations, I recommend that the Assistant Secretary of Defense for Intelligence report directly to the Secretary/Deputy Secretary of Defense.

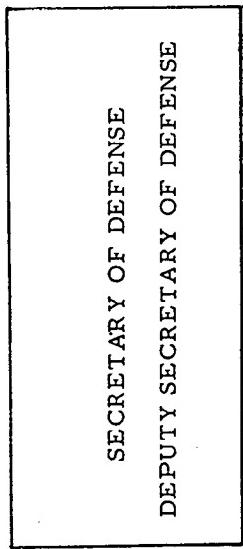
In summary, I believe that the JCS and the Joint Staff as presently constituted should remain in the operational chain of command between the Secretary of Defense and the Unified and Specified Commanders. I believe that the Chairman of the JCS should have a four star Deputy but I am opposed to the creation of another operational staff and to the creation of an Under or Deputy Secretary of Defense for Operations. Likewise, I recommend against the creation of a Strategic, a Tactical and a Logistics Command and the subordination of the Service Secretaries to an Under Secretary of Defense. I further believe

that the Unified Commanders are able to exert all necessary command authority over their Component Commanders, and I do not concur that the Component Commanders should be designated as Service Deputies.

I concur with the proposal to establish an Under Secretary of Defense for Resources and an Under Secretary of Defense for Evaluation, and believe that this change will solve many of the organizational problems with the Defense establishment in Washington by reducing the number of offices reporting to the Secretary of Defense.

Referring once again to the paragraph from the Panel's Report quoted at the beginning of my comments, I wish to add that the revolutionary approach to organizational change could conceivably cause unconscionable chaos, and at the least, a furor out of proportion to the importance of the recommended change. However, in my view, the real danger would be that in this environment of contention brought about by dissension over organization, other important and vitally necessary changes recommended by the Panel would be submerged and efforts to bring them to fruition would be interdicted by the cloud of controversy over organization.

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Enclosure to
Statement of Dissent from
Robert C. Jackson

DISSENTING STATEMENT OF WILFRED J. McNEIL

The Report of the Blue Ribbon Defense Panel contains many statements and recommendations that are deserving of full support. As an example, I think that the reasoning and conclusions dealing with the development and acquisition of weapons and equipment are excellent and the recommendations should be adopted without delay.

However, with certain exceptions, I do not concur in the concept nor in most of the recommendations in Chapter I, "Organization," references to organization matters in other chapters or with some of the recommendations on logistics. Following are comments relating to these sections of the Report together with my recommended organization chart for the Department of Defense.

The results of overcentralized management of the 1960's, the hearings conducted by the Panel, and the preface of the Report itself, all call for decentralization of command and management. Panel recommendations on organization, however, go in the other direction. It is proposed that present functions of the Office of the Secretary of Defense be expanded and assigned to an OSD staff of greater stature encouraging more and more centralization. At the same time, the Military Departments and their Secretaries would be downgraded and the Joint Chiefs of Staff, including The Chairman, considered - by implication, at least - unsuited because of Service rivalry or parochialism, etc., to lead or direct the fighting forces. This in spite of the fact that they all have thirty to forty years of honorable field or combat experience and are among the best trained and ablest people in the nation.

To carry out a program of decentralization, the need for strong, well-organized and well-run military departments is recognized. Yet, for reasons touched on above, many of the recommendations on organization in the Report - if carried out - would be one long step toward a highly centralized Single Service and in the case of logistics, recommendations admittedly lay the groundwork for a Single Service of Supply. I could not concur with either objective.

(Note: There are evidences that the Secretary of Defense and the Deputy Secretary of Defense are attempting to decentralize or delegate some of the decision making tasks and to restore some of the responsibilities that the heads of the Military Departments once carried. This effort may be - for the time being at least - a somewhat frustrating experience. After some eight years of overcentralization, the capability to accept responsibility and to make decisions withers (standing instructions being what they are) and it can take time to reverse the pattern. Temporary lapses or failures should not affect the long-term objective.)

As groundwork for the comments that follow, I would like to quote from the foreword of one of the Panel's Staff Reports:

"... we tend to meet any new situation by reorganizing and a wonderful method it can be for creating the illusion of progress while producing confusion, inefficiency, and demoralization."

Petronius Arbiter circa. A.D. 60

There is a natural tendency to choose the route of drastic reorganization if some segment is

not living up to expectations. Also, there is the tendency to merge or combine two or more segments of an organization if either or both are operating in an unsatisfactory manner instead of attempting to solve the individual and lesser problem first. It is in this framework that the following comments are submitted.

Mr. Robert C. Jackson, a member of the Panel and a person with long experience in observing the strong and weak points of the military structure submitted a dissent from the Panel Report. While he indicated that he still was not in agreement with a number of facets of the Report, he limited his formal dissent to three important areas. I subscribe to his reasoning and his conclusions except that any new Under Secretaries of Defense (for Resources and for Evaluation) should be staff to the Secretary of Defense and ranked next junior to the Secretaries of the Military Departments. Because of the thoroughness of his work I will try to avoid undue duplication of Mr. Jackson's observations, although my comments point to the same conclusions.

First, there is merit in the grouping of certain OSD functions dealing with: (1) Resources and, (2) Evaluation - PROVIDING that each of the two groups were to be headed by an Under Secretary of Defense who was staff to the Secretary of Defense and the Deputy Secretary of Defense, and ranked next junior to the Secretaries of the Military Departments. I do not subscribe to the proposal for another Under Secretary of Defense to head a new military operations staff as contemplated in the Report.

Next, I urge that the Joint Chiefs of Staff, their Chairman, and the Joint Staff be considered as an integral part of the Office of the Secretary of Defense. In this context I believe that the JCS, and the Chairman should report directly to the Secretary of Defense, or his Deputy acting in his stead, that the JCS represented by the Chairman should be in the chain of command to the Unified or Specified Commands as is the practice at present and that the Joint Staff should report to him. No new and separate military operations staff is needed although the Secretary of Defense may wish to have a Special Assistant or a small personal staff to monitor JCS work.

(Note: There is criticism, and with some justification, of the size of the Joint Staff, its committees and of the involved procedures that have developed over the years. What is not recognized in the Report is the tendency for every element of OSD - when they have a problem - to "pass the buck" by just asking JCS for their comments. As a result, the Joint Staff and the associated committees devote many man years of effort to matters that should, in my opinion, never go to JCS at all. For example, the JCS should not get into Budget detail. Rather their contribution to this function should be in the consideration of primary force requirements and the general readiness of the forces.)

I am not sure what would be accomplished by placing Component Commanders as staff to the Unified Commander. It would result in the creation of a large single staff dealing in a myriad of technical and logistic detail of all Services that normally a Unified Commander should not be burdened with. The present organization gives the Unified Commander clear, unfragmented command authority over all forces assigned to him and the designation of Component Commanders as Deputies would not enhance the Unified Commanders authority. In my opinion, the primary duties of the Unified Commander is to "fight" the assigned forces, or to be ready to "fight" the assigned forces. He should, of course, be able to state his opinion as to his present and future needs and to submit views as

to the adequacy and inadequacy of weapons available to him. His requirements, however, are just a part of the overall picture and cannot be accepted without evaluation any more than any other element of the forces.

While the dissent submitted by Mr. Jackson presents reasons against the proliferation of top commands, I would like to add a brief comment for emphasis, at the risk of repetition.

There is no need for, nor do I favor the establishment of a "Strategic Command." The present Joint Targeting system has worked well and should continue. The creation of a "Strategic Command" would produce yet another 'layer' between decision makers and the forces. In the years to come the maintenance, replacement, and if need be, the use of these forces can be most effectively and efficiently accomplished under the present system.

A new "Tactical Command" headquarters is, in my opinion, unnecessary. Facilities exist today to handle the command relationships with the Unified and Specified Commands. The "Tactical Command" concept is once again the 'layering' process which produces a large staff but leaves in doubt just how this produces more effectiveness or clear cut lines of command and for planning.

I do not subscribe to a "Logistic Command" as proposed in the Report. I find no solid evidence in Staff Reports to support this proposal.

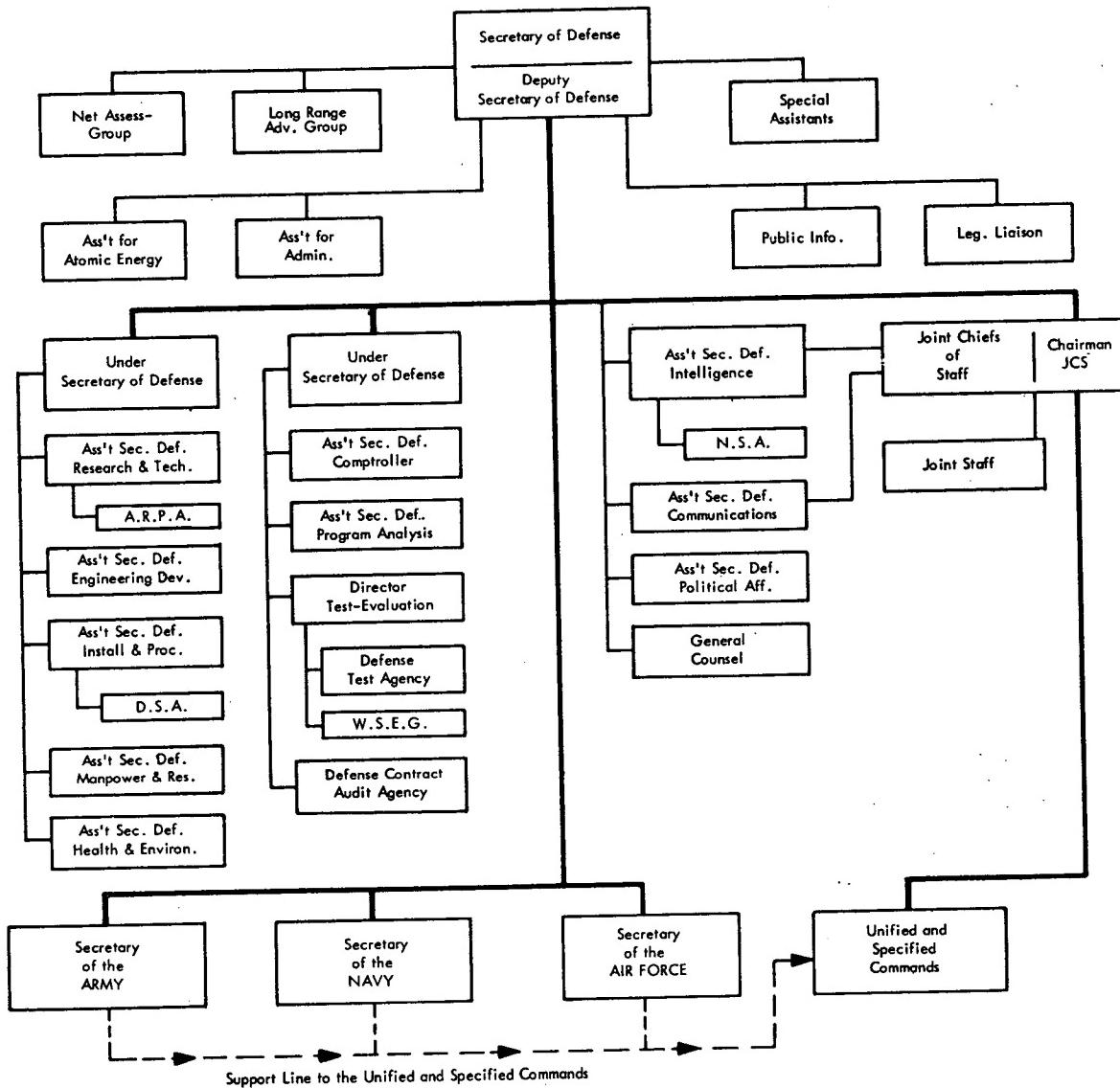
The Long Range Planning Council and a Net Assessment Group has merit and should report directly to the Secretary/Deputy Secretary of Defense as special staff groups.

I agree with Mr. Jackson that what is now ISA should be retitled Political/Military Affairs, as being more descriptive, and this function should report to the Secretary of Defense. The enclosed chart shows the Communications function and the Intelligence function reporting to the Secretary/Deputy Secretary of Defense. They might well report to the Under Secretary of Defense. Regardless of the reporting line, it would be helpful if these functions were organized and staffed so they might serve all users - in a manner similar to the way the Navy has organized and operated its finance function at Headquarters.

It is not possible for a Panel such as this to cover every facet of the work of the entire Department of Defense. I do feel, however, that there are certain deficiencies in the Report that should have been dealt with. For example, no staff studies on organization of the Military Departments were undertaken, and except for an admonition to reduce staff personnel, no recommendations are included in the Report. Another example - on several occasions I proposed that the sense of major recommendations or alternatives that were under consideration by the Panel be discussed with senior people of the organizational entities affected in order to secure their input and ideas. Conceivably, people currently engaged in the actual work of the Department would have a contribution to make. No doubt some objections - both real and fancied - would have been raised which the Panel could have accepted or rejected. In any case, I believe that the work of the Panel would have been more thorough and complete had this been done. The Panel, as a whole, took the opposite view.

Although the dissents relate to important areas of the Panel's work there are - as stated at the outset - many conclusions and recommendations that deserve full support. They are well worth the year-long effort on the part of the Panel members and the Staff.

RECOMMENDED ORGANIZATION CHART
DEPARTMENT OF DEFENSE
June 25, 1970



Enclosure to
Statement of Dissent from
Wilfred J. McNeil

CONSOLIDATED LIST OF RECOMMENDATIONS

ORGANIZATION

I-1 The functions of the Department of Defense should be divided into three major groupings:

- (a) Military Operations, including operational command, intelligence, and communications (herein called Operations);
- (b) Management of personnel and materiel resources (herein called Management of Resources); and
- (c) Evaluation type functions, including financial controls, testing of weapons, analysis of costs and effectiveness of force structures, etc, (herein called Evaluation).

I-2 Each of these major groups should report to the Secretary of Defense through a separate Deputy Secretary. Appointees to these three positions should be drawn from civilian life, and should rank above all other officers of the Department of Defense except the Secretary. One of the three should be designated principal deputy. The General Counsel, the Assistant to the Secretary of Defense (Atomic Energy), the Assistant Secretary of Defense (Public Affairs), and the Assistant to the Secretary of Defense (Legislative Affairs) would continue to report directly to the Secretary of Defense. The staff of the Office of the Secretary of Defense should not exceed 2,000 people.

I-3 The Deputy Secretary of Defense for Management of Resources should be delegated responsibility for the following functions:

- (a) The Military Departments, which should continue under the immediate supervision of their Secretaries;
- (b) Research and Advanced Technology;
- (c) Engineering Development;
- (d) Installations and Procurement (a modification of the present Installations and Logistics);
- (e) Manpower and Reserve Affairs;
- (f) Health and Environmental Affairs;
- (g) Defense Supply Agency; and
- (h) Advanced Research Projects Agency.

There should be an Assistant Secretary of Defense for each of the functions (b) through (f) inclusive, who reports and provides staff assistance to the Secretary of Defense through the Deputy Secretary of Defense (Management of Resources). The position of Director, Defense Research and Engineering should be abolished, and his functions reallocated between the Assistant Secretary of Defense for Research and Advanced Technology and the Assistant Secretary of Defense for Engineering Development.

Functions (g) and (h) should continue to be constituted as Defense Agencies, each under the immediate supervision of a Director.

The Advanced Research Projects Agency should be delegated the responsibility for all research and exploratory development budget categories. Funds for such research should be budgeted directly to this Agency, and the Agency should be authorized to assign or contract for work projects to laboratories of the Defense Department or in the private sector, as appropriate.

I-4 The Deputy Secretary of Defense for Operations should be delegated responsibility for the following functions:

- (a) Military Operations;
- (b) The Unified Commands;
- (c) Operational Requirements;
- (d) Intelligence;
- (e) Telecommunications (and Automatic Data Processing);
- (f) International Security Affairs;
- (g) Defense Communications Agency; and
- (h) Civil Defense Agency (If Civil Defense is to be retained in the Department of Defense).

Three new major Unified Commands should be created: (1) A Strategic Command, composed of the existing Strategic Air Command, the Joint Strategic Target Planning Staff, the Continental Air Defense Command, and Fleet Ballistic Missile Operations; (2) A Tactical (or General Purpose) Command, composed of all combatant general purpose forces of the United States assigned to organized combatant units; and (3) A Logistics Command, to exercise for all combatant forces supervision of support activities, including supply distribution, maintenance, traffic management and transportation. No Commander of a Unified Command should be permitted to serve concurrently as Chief of his Military Service.

The responsibilities now delegated to the Joint Chiefs of Staff by the Secretary of Defense to serve as military staff in the chain of operational command with respect to the Unified Commands, and all other responsibilities so delegated which are related to military

operations and the Unified Commands, should be assigned to a single senior military officer, who should also supervise the separate staff which provides staff support on military operations and the channel of communications from the President and Secretary of Defense to Unified Commands. This officer should report to the Secretary of Defense through the Deputy Secretary of Defense (Operations). This senior military officer could be either the Chairman of the Joint Chiefs of Staff, as an individual, not ex-officio, the Commander of the Tactical Command, or some other senior military officer, as determined by the President and the Secretary of Defense.

There should be an Assistant Secretary of Defense for each of the functions (c) through (f), inclusive, who reports and provides staff assistance to the Secretary of Defense through the Deputy Secretary of Defense (Operations). The Defense Communications Agency and the Civil Defense Agency would each be under the immediate supervision of a Director.

All intelligence functions of the Department of Defense and all communications functions should report to the Secretary of Defense through the Deputy Secretary of Defense for Operations.

I-5 The following steps should also be taken:

(a) To provide the staff support on military operations, and the channel of communications from the President and the Secretary of Defense to the Unified Commands, an operations staff, separate from all other military staffs, should be created.

(b) The responsibilities now delegated to the Joint Chiefs of Staff by the Secretary of Defense to serve as military staff in the chain of operational command with respect to the Unified Commands, and all other responsibilities so delegated which are related to military operations and the Unified Commands, should be rescinded; and consideration should be given to changing the title of the Chief of Naval Operations to Chief of Staff of the Navy.

(c) All staff personnel positions in the Organization of the Joint Chiefs of Staff and in the headquarters military staffs of the Military Services which are in support of activities, such as military operations, which are recommended for transfer to other organizational elements, should be eliminated.

(d) The Organization of the Joint Chiefs of Staff should be limited to include only the Joint Chiefs of Staff and a reconstituted Joint Staff limited in size to not more than 250 officers augmented by professional civilian analysts as required.

(e) The Unified Commanders should be given unfragmented command authority for their Commands, and the Commanders of component commands should be redesignated Deputies to the commander of the appropriate Unified Command, in order to make it unmistakably clear that the combatant forces are in the chain of command which runs exclusively through the Unified Commander;

(f) In consolidating the existing area Unified Commands into the Tactical Command, major organizational and functional advantages will be obtained by:

- (1) Merging the Atlantic Command and the Strike Command;
- (2) Abolishing the Southern Command and reassigning its functions to the merged Atlantic and Strike Commands;
- (3) Abolishing the Alaskan Command and reassigning its general purpose function to the Pacific Command and its strategic defense functions to the Strategic Command; and
- (4) Restructuring the command channels of the sub-unified commands.

(g) The responsibilities related to civil disturbances currently delegated to the Army should be redelegated to the Tactical Command; and

(h) The Unified Commanders should be given express responsibility and capability for making recommendations to the Deputy Secretary of Defense for Operations, for operational capabilities objectives and for allocations of force structures needed for the effective accomplishment of the missions assigned to their Commands.

I-6 The Deputy Secretary of Defense for Evaluation should be delegated the responsibility for the evaluation and control-type activities, including:

- (a) Comptroller (including internal audit and inspection services);
- (b) Program and Force Analysis (a modification of the present Systems Analysis Unit);
- (c) Test and Evaluation;
- (d) Defense Contract Audit Agency; and
- (e) Defense Test Agency.

There should be an Assistant Secretary of Defense for each of the functions (a) through (c) inclusive, who reports and provides staff assistance to the Secretary of the Defense through the Deputy Secretary of Defense for Evaluation.

The Defense Contract Audit Agency should be continued as a Defense Agency, under the immediate supervision of a Director.

A Defense Test Agency should be created to perform the functions of overview of all Defense test and evaluation, designing or reviewing of designs for test, monitoring and evaluation of the entire Defense test program, and conducting tests and evaluations as required, with particular emphasis on operational testing, and on systems and equipments which span Service lines. The Defense Test Agency should be under the supervision of a civilian Director, reporting to the Secretary of Defense through the Deputy Secretary of Defense for Evaluation.

I-7 The number of Assistant Secretaries in each of the Military Departments should be set at three, and except for the Assistant Secretaries (Financial Management), they should serve as senior members of a personal staff to the Secretaries of the Military Departments without the existing limitations of purview imposed by formal functional assignments. The Assistant Secretary (Financial Management) should become the Comptroller of the Military Department, with a military deputy, as in the current organization in the Department of the Navy.

The Secretariats and Service Military Staffs should be integrated to the extent necessary to eliminate duplication; the functions related to military operations and intelligence should be eliminated; line type functions, e.g., personnel operations, should be transferred to command organizations; and the remaining elements should be reduced by at least thirty percent. (A study of the present staffs indicates that the Secretariats and Service staffs combined should total no more than 2,000 people for each Department).

I-8 Class II activities (Army), Field Extensions (Air Force), and Commands and Bureaus (Navy), all of which are line, rather than staff in character, which are now organizationally located under the direct supervision of staff elements in the headquarters military staffs of the services, should be transferred to existing command-type organizations within the Services.

I-9 The Defense Atomic Support Agency should be disestablished. Its functions for nuclear weapons management should be transferred to the operations staff under the Deputy Secretary of Defense for Operations, and its weapons effects test design function should be transferred to the Defense Test Agency.

I-10 The administration functions presently assigned to the Assistant Secretary of Defense (Administration) should be assigned to a Director of Pentagon Services, reporting to the immediate office of the Secretary of Defense. He should be responsible for operating the facilities and providing administrative support for the Washington Headquarters.

I-11 A separate program category should be established for public affairs activities in the Department of Defense.

I-12 A Net Assessment Group should be created for the purpose of conducting and reporting net assessments of United States and foreign military capabilities and potentials. This group should consist of individuals from appropriate units in the Department of Defense, consultants and contract personnel appointed from time to time by the Secretary

of Defense, and should report directly to him.

I-13 A Long-Range Planning Group should be created for the purpose of providing staff support to the Secretary of Defense with responsibility for long-range planning which integrates net assessments, technological projections, fiscal planning, etc. This group should consist of individuals from appropriate units in the Department of Defense, consultants and contract personnel appointed from time to time by the Secretary of Defense, and should report directly to him.

I-14 A coordinating Group should be established in the immediate office of the Secretary of Defense. The responsibilities of this Group should be to assist the Secretary of Defense and the Deputy Secretaries of Defense in coordinating the activities of the entire Department in the scheduling and follow-up of the various inter-Departmental liaison activities; to staff for the Secretary the control function for improvement and reduction of management information/control systems needed within the Department and required from Defense contractors; and to assure that each organizational charter of the Office of the Secretary of Defense is properly scoped and coordinated and in accordance with the assigned responsibility of the organization. The responsibility for the Department's Directive/Guidance System, currently assigned to the Assistant Secretary of Defense (Administration), should be assigned to this group. The coordinating group should be headed by a civilian Director, who should also serve as executive assistant to the Secretary of Defense.

I-15 The Army Topographic Command, the Naval Oceanographic Office and the Aeronautical Chart and Information Center should be combined into a unified Defense Map Service reporting to the Secretary of Defense through the Deputy Secretary of Defense for Management of Resources.

CONSOLIDATED LIST OF RECOMMENDATIONS
MANAGEMENT OF MATERIEL RESOURCES

II-1 Research and Development to advance the technological base should be constituted as a separate program, under the staff supervision of the Assistant Secretary of Defense (Research and Advanced Technology). It should be subject to continuing intensive review to insure that available funds are allocated to militarily-relevant research and that all militarily-relevant areas of technology are considered in fund allocations.

II-2 The responsibility for control of Defense research designated to advance the technological base and the appropriated funds therefor should be assigned to the Advanced Research Projects Agency (ARPA). Further, ARPA should be directed to:

- (a) Allocate its R&D among qualified performers;
 - (b) Assure by review the relevance of all projects and appropriateness of fund allocations;
 - (c) Evaluate the effectiveness of all its R&D participants; and
 - (d) Develop and submit for approval to the Deputy Secretary of Defense (Management of Resources) an annual Research Objective (RO) statement which would be a companion document to the Operational Capability Objectives developed by the Unified Commands and which would provide the Secretary of Defense an information base to determine the overall defense capability objectives.
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II-3 The Strategic, Tactical and Logistics Commands should be assigned the responsibility to develop, and submit to the Deputy Secretary for Operations, Operational Capability Objectives relating to their assigned missions. For this purpose, each Command and major sub-command Headquarters should be organized to include an operations analysis element.

II-4 For each Operational Capability Objective which is validated by the Deputy Secretary for Operations, the Deputy Secretary for Management of Resources should require one or more of the Military Departments to prepare and submit a development plan aimed at satisfying the Operational Capability Objective.

II-5 A new development policy for weapon systems and other hardware should be formulated and promulgated to cause the reduction of technical risks through demonstrated hardware before full-scale development, and to provide the needed flexibility in acquisition strategies. The new policy should provide for:

- (a) Exploratory and advanced development of selected sub-systems and components independent of the development of weapon systems;
- (b) The use of government laboratories and contractors to develop selected sub-systems and components on a long-term level of effort basis;
- (c) More use of competitive prototypes and less reliance on paper studies;
- (d) Selected lengthening of production schedules, keeping the system in production over a greater period of time;
- (e) A general rule against concurrent development and production, with the production decision deferred until successful demonstration of developmental prototypes;
- (f) Continued trade-off between new weapon systems and modifications to existing weapon systems currently in production;
- (g) Stricter limitations of elements of systems to essentials to eliminate "gold-plating";
- (h) Flexibility in selecting type of contract most appropriate for development and the assessment of the technical risks involved;
- (i) Flexibility in the application of a requirement for formal contract definition, in recognition of its inapplicability to many developments;
- (j) Assurance of such matters as maintainability, reliability, etc., by other means than detailed documentation by contractors as a part of design proposals;
- (k) Appropriate planning early in the development cycle for subsequent test and evaluation, and effective transition to the test and evaluation phase; and
- (l) A prohibition of total package procurement.

II-6 Department of Defense Directive 3200.9, Initiation of Engineering Development, should be rescinded.

II-7 Research and Development undertaken to satisfy specific military materiel requirements should be under the staff supervision of the Assistant Secretary of Defense (Engineering Development).

II-8 The Advanced Research Projects Agency (ARPA) should be required to provide a formal technical risk assessment on all proposed new systems prior to the approval of the Development Concept Paper (DCP).

II-9 In concert with the new development policy recommended for major weapons systems, the same increased flexibility of techniques should be provided for minor systems.

II-10 The stated policy of the Department of Defense to provide incentives to encourage private innovators' participation in the development of defense products should be reaffirmed and promulgated. The reaffirmation of policy should be supplemented by directives -

(a) To improve procurement practices by requiring the submittal of bid samples in the procurement of catalog items;

(b) With respect to patent rights, to define "Subject Inventions": as

(1) Those inventions originally conceived pursuant to the research and development work specifically called for by a Government contract; and

(2) Those inventions conceived prior to the award of a Government research and development contract which have not been reduced to practice constructively or actually prior to said award, and are first actually reduced to practice pursuant to the research and development work specifically called for by the contract; and acquire for the Government a royalty free non-exclusive license in patents based on Subject Inventions, for Governmental purposes; and

(c) With respect to Rights in Data, to obtain only that proprietary data essential to accomplishing Governmental purposes other than manufacture or reprocurement, and to establish new basic categories of data rights:

(1) Unlimited - including publication rights;

(2) Limited - prohibited for reprocurement or manufacture, and

(3) Production - right to use (license) for procurement and manufacture.

II-11 The effectiveness of Program Management should be improved by:

(a) Establishing a career specialty code for program managers in each Military Service, and developing selection and training criteria that will insure the availability of an adequate number of qualified officers. The criteria should emphasize achieving a balance between needs of a knowledge of operational requirements and experience in management;

(b) Increasing the use of qualified civilian personnel as Program Managers;

(c) Providing authority commensurate with the assigned responsibility and more direct reporting lines for Program Managers, particularly those operating in matrix organizational arrangements; and

(d) Giving the Program Manager, subject to applicable laws, directive authority over the contracting officer, and clarifying the fact that the contract auditor acts only in an advisory role.

II-12 The Secretary of Defense should establish a small staff within the Coordinating Group reporting to him and assign it the responsibility of effecting both a major improvement and reduction in the control and information needed for management within the Defense Department and, in turn, of its defense contractors. This should be done by specifying what is required, not dictating how to manage. Immediate top-level support to follow the current management system control project through to its successful conclusion should be one of the first actions. Included in this action should be direction to implement Instructions 7000.6, "Development of Management Control Systems Used in the Acquisition Process," and 7000.7, "Selection and Application of Management Control Systems in the Acquisition Process," with the control responsibility specified therein for the Assistant Secretary of Defense (Comptroller) reassigned to the Coordinating Group.

II-13 The management cost information needed within the Department and for visibility to Congress on major weapon systems acquisitions should be improved by recognizing the evolutionary nature of cost baseline estimates. Estimates should be reevaluated at each significant milestone of development.

II-14 Increased use should be made of parametric costing techniques to improve the quality of original and subsequent estimates, and to help offset the difficulties of estimating the cost of unknowns.

II-15 Individual contractors should accept a more responsible role as management members of a defense development team, and provide the Government with the benefit of greater objectivity in the contractor's independent evaluation of a proposed development.

II-16 The practice of providing the members of the Congress 24-hour advance notice of contract awards should be discontinued. Such members should be notified concurrently with public announcement of contract awards.

II-17 The Advanced Research Projects Agency (ARPA) and the Defense Test Agency (DTA) should be directed to make a joint review to determine which in-house defense laboratories and test and evaluation centers are essential to research and development needs of the Department with the goal of eliminating the nonessential ones, and consolidating (across Services) the remainder.

II-18 A procedure should be authorized by Statute whereby all or a part of the proceeds from the disposal of existing defense laboratories or centers can be used for construction of a new facility or expansion of an existing one which such construction or expansion has been authorized by Congress.

II-19 Close attention should be given to the possible advantages of having some of these laboratories and centers government-owned but contractor-operated.

II-20 The responsibility for Defense test and evaluation policy should be assigned to the Assistant Secretary of Defense (Test and Evaluation).

II-21 A separate program category should be established for Test and Evaluation.

II-22 The responsibility for overview of Defense test and evaluation effort should be assigned to the Defense Test Agency. In addition, the Agency should be responsible for design or review of test designs, performing or monitoring of tests, and continuous evaluation of the entire test and evaluation program.

II-23 The Secretary of Defense should recommend to the Congress and to the existing commission on Government-wide procurement that the Armed Services Procurement Act and other applicable statutes be amended to reduce or eliminate the requirement for Determination and Findings on all negotiated contracts, to reflect the practicalities of Defense procurement needs and activities which result in most Defense procurements being accomplished by other than formally advertised methods, and also to reflect the various new types of contracts developed in recent years.

II-24 The Armed Services Procurement Regulation (ASPR) and the ASPR Committee System should be reviewed with the objective of formulating a more efficient management organization for incorporating changes into the ASPR and with the view toward reduction in the volume and the complexity of the ASPR.

II-25 In the implementation of procurement policy, due regard should be given to the need for an adequate but not excessive, industrial base.

II-26 Improvement should be affected in the acquisition, training and retention of procurement personnel, with emphasis on a promotion system for contract negotiators which will not necessarily remove them from negotiating activities.

II-27 The Department of Defense should consider buying and providing industrial plant and equipment to contractors only when it can be clearly shown to be to the economic advantage of the Government or when it is essential to the Department's plan to provide a viable industrial mobilization base. Contractors should be encouraged to provide necessary industrial plants and plant equipment, and should be permitted to charge off peculiar plant equipment against specific contracts.

II-28 A program should be initiated for the Department of Defense to divest all plant equipment where ownership cannot clearly be shown to be to the economic advantage of the Government.

II-29 A plan should be developed and implemented to assure that emergency production of high priority war materiel can be initiated quickly and effectively.

II-30 The responsibility for maintaining an inventory and control of Department-owned equipment should be assigned to the Assistant Secretary of Defense (Installations and Procurement).

II-31 Repair in lieu of replacement should be an allowable charge against the parent procurement appropriation funding the basic equipment.

II-32 The responsibility for providing supply distribution, maintenance and transportation services to the combatant forces in Unified and Specified Commands under the Strategic and Tactical Commands should be assigned to the unified Logistics Command.

II-33 The Logistics Command should be assigned the traffic management and terminal management functions now allocated to the Military Traffic Management and Terminal Service (MTMTS), the Military Sea Transportation Service (MSTS) and the Theater Traffic Management agencies.

II-34 The Military Airlift Command and Military Sea Transportation Command both should

be assigned to the Logistics Command.

II-35 The Logistics Command should be directed to develop, under the policy guidance of the Assistant Secretary of Defense (Telecommunications), an ADP logistics system to encompass supply distribution elements that can be shared among the Services, and all development and procurement activity toward separate ADP logistics systems not essential to support of near-term operations should be suspended.

II-36 A moratorium should be declared on Integrated Management Coding for transfers of the management of items, and a complete review be conducted to determine:

- (a) The adequacy of IMC criteria as indicated by experience with their use;
 - (b) The magnitude of impact of divided management responsibility for major end items and for the components and parts for the item;
 - (c) The number of items coded for transfers of managers with partial or dry pipelines, the relationship of "dry pipeline" item management transfers and stock fund depletion of transferers, the impact of "dry pipeline" item management transfers on requisitioners, and the feasibility of establishing pipeline fill requirements as prerequisites for item management transfers;
 - (d) The feasibility of establishing technical data availability standards for item management transfers;
 - (e) Methods of reducing conflicts of Integrated Management Coding by the several Military Services; and
 - (f) The impact on requisitioners of existing criteria by which items are coded as "non-stocked".
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CONSOLIDATED LIST OF RECOMMENDATIONS
MANAGEMENT AND PROCEDURES

III-1 The PPBS should be modified to include the formulation of Research Objectives (ROs) by the Advanced Research Projects Agency (ARPA), the preparation and submission of Operational Capability Objectives (OCOs) and Command Program Memoranda (CPMs) by the major Unified Commands, and development plans and Development Concept Papers (DCP) submitted by the Military Departments.

III-2 The time prescribed annually for the PPBS cycle should be constricted after the first cycle and the new FYDP is completed in order to bring the planning phase nearer in time to the period of operations.

III-3 The various categories used in and in connection with the PPBS should be made to coincide as nearly as practical and be stabilized.

III-4 The fiscal guidance should prescribe a declining limit for each out year in the Research and Development and in the Procurement program categories in order to preserve a flexibility in the FYDP to exploit developing technology and to program to meet unanticipated threats.

III-5 Every effort should be made to obtain agreement by the Congress to accept defense budgets and to appropriate in program rather than existing budget categories.

III-6 The Joint Staff should be augmented with a complement of civilian analysts, in order to enhance its analytical capability generally, and to improve its capability to evaluate Service submissions of cost and manpower levels for the JFM in particular.

III-7 Analytical capability should be strengthened throughout the Department, and particularly in the Office of the Secretary of Defense.

III-8 The factors bearing on war reserve stock levels and production base plants should be analyzed and evaluated in order to develop meaningful policy objectives which can be compatible with logistics guidance.

III-9 Increased emphasis should be placed on identifying, acquiring and training personnel who have the capability to prepare Development Concept Papers for major developments.

III-10 The Development Concept Paper should not be employed as a management tool for areas of research and development other than major systems developments.

III-11 The Secretary of Defense should establish a small staff function within the Coordinating Group reporting to him and assign it the responsibility of effecting both a major improvement and reduction in the control and information needed for management within the Defense Department, and in turn, of its Defense contractors. This should be done by specifying what is required, not dictating how to manage. An objective should be established to further enable the Department components and industry to evolve a more stable management environment by restricting changes in control and report requirements to the minimum basic requirements. The Department's Directives and Instructions should be codified through consolidation, revision and restatement. In addition, criteria for imposition of control systems and reporting requirements should be expanded to require a statement of need, benefit, estimated cost (of preparation, handling and review) and why existing systems and reports do not satisfy the need. Periodic reviews should also be required for the purpose of confirming the continuing need for the controls and information required. In addition, all organization charters of the Office of the Secretary of Defense should be reviewed to assure that they were properly defined and coordinated and were in accordance with the responsibilities assigned to the office(s).

III-12 Similar small staff groups should be constituted in the immediate offices of the Military Department Secretaries and the Chairman of the Joint Chiefs of Staff.

III-13 Policy makers in the Department of Defense should be acutely aware of the necessity of using formal communications channels for promulgation of policies and procedures.

III-14 The Selected Acquisition Reports in their present formats should no longer be used as management tools.

III-15 The Flimsy-Buff-Green decision-making process of the Joint Chiefs of Staff should be eliminated.

III-16 A decision-making process for the JCS should be established on the pattern of the

Development Concept Paper (DCP). Inputs should be requested from the Military Departments, as required, only for the initial draft of the position paper, and the Military Services should participate in no other way in the internal decision-making process of the JCS. The draft position paper should contain all known feasible alternatives; and each level in the process should be required to review for quality and sufficiency, and indicate by signature and designation the recommended alternative, all to the end that fidelity to the original issue be maintained and the extraneous pressures for unanimity be reduced.

III-17 Accrual accounting systems in the Department of Defense should be confined to those Service activities which operate under stock funds or industrial funds, and which are required to establish service charges which reflect total costs.

III-18 An internal audit organization should be established at the OSD level, headed by a highly qualified civilian audit administrator who should report to the Deputy Secretary of Defense (Evaluation) through the Assistant Secretary of Defense (Comptroller). This new office, which might be called the Office of Defense Internal Audit, should include the present functions and staffs of the Office of the Director for Audit Policy, the Deputy Comptroller for Internal Audit, and the Directorate of Inspection Services now existing in the Office of the Assistant Secretary of Defense (Administration). In addition to the existing responsibilities of the audit groups being combined, the new Office of Defense Internal Audit should direct its efforts toward:

(a) Making more extensive reviews of the manner in which the internal auditing function is being carried out by the internal audit organizations of the Military Departments and Defense Agencies.

(b) Making more internal audits of inter-Service activities and Unified Commands with the use of its own personnel to a much greater extent than is presently being done.

III-19 The head of each internal audit group should be a civilian, and the internal auditors of each of the audit groups should be primarily civilian rather than military personnel. The head of each departmental internal audit group should report directly to the Secretariat of his respective Department.

III-20 A single formal internal audit education and training program within the Department should be initiated by the new Office of Defense Internal Audit, the execution of which could be delegated to one of the Military Departments as executive agent.

III-21 The following modifications in internal audit should be made:

(a) The guidelines for determination of savings under the Cost Reduction Program should be clarified and improved to permit such determinations to be made with greater reliability;

(b) The proposed new Office of Defense Internal Audit should develop improved methods for budgeting and controlling the time utilized on internal audits;

(c) Each audit group should expand its audit coverage to include the activities of major headquarters staffs at the departmental level;

(d) Audit tests and investigations should not be extended beyond the point where findings are sufficient to identify significant problems and to support reasonable conclusions as to their causes and seriousness; and

(e) Standard audit programs or modules should be developed and used for common audit areas. They should be flexible enough to permit modifications in the field prior to the commencement of audit assignments.

CONSOLIDATED LIST OF RECOMMENDATIONS
MANAGEMENT OF PERSONNEL RESOURCES

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IV-1 The application of Civil Service rules to "supergrade" positions in the Department of Defense should be changed to provide the Secretary of Defense with more authority for placement, rotation, promotion and compensation rates in these grades.

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IV-2 Those activities in the Military Departments now headed by a military officer with an immediate civilian subordinate should be surveyed to determine the necessity of military direction of the activity, and where no such requirement is found to exist, the position at the head of the activity should be civilianized or made optional for a military officer or a civilian to fill, and dual staffing should be permitted only in exceptional cases.

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IV-3 Specialist careers should be established for officers in such staff, technical and professional fields as research, development, intelligence, communications, automatic data processing, and procurement.

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IV-4 The duration of assignments should be increased, and should be as responsive to the requirements of the job as to the career plan of the officer. Officers continued on an assignment for these reasons should not be disadvantaged in opportunity for promotion.

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IV-5 In technical assignments, the officer's replacement should be assigned to the job sufficiently in advance of his predecessor's departure to be ready to take over without loss of momentum when he leaves.

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IV-6 Promotion Boards should consider a larger proportion of candidates from "below the zone" in order to encourage younger officers of top ability to remain in the service. (The percentage so selected might well vary by grade).

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IV-7 The Secretary of Defense should have more direct responsibility for the promotion and career management of officers to and within General and Flag ranks, and in the selection of and instructions to promotion boards.

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IV-8 The Secretary of Defense and Secretaries of the Military Departments should designate

specific percentages, or proportions, of promotions in particular joint, technical, or professional fields and should establish special career ladders of promotion in special technical and professional fields.

IV-9 (a) Military pay and other forms of compensation should be made sufficient to facilitate recruitment and retention of competent officers and enlisted personnel. This applies to all grades and position classifications, and particularly to those that have suffered the highest termination rates. This should be done as a matter of equity, and to assure the acquisition and retention of competent military manpower.

(b) The military retirement system should be adjusted in order to encourage retention of qualified and needed personnel, while at the same time permitting military forces to be kept young and vigorous. Among retirees, consideration should be given to the varying needs of those still in the working age group and those over such age. The trend of increases in both the number of retirees on the rolls and the total costs of military retirement necessitate early consideration of the retirement system.

IV-10 In order to improve the process of acquisition and retention of military personnel, the Executive Branch should develop, and submit to the Congress for its consideration as necessary, a total military personnel program which coordinates and reconciles all the separate considerations, particularly including; (1) military compensation and retirement, (2) personnel policies on promotion and rotation, and (3) acquisition programs, such as Reserve Officers Training Corps.

IV-11 Participation of predominantly Negro colleges in the ROTC program should be encouraged. The Navy and Air Force in particular should increase their programs in predominantly Negro colleges.

IV-12 The Junior ROTC Program should be expanded.

IV-13 Substantially increased emphasis should be placed on information and education programs for enlisted personnel, with special training provided for officers to be responsible for conducting the programs.

CONSOLIDATED LIST OF RECOMMENDATIONS
OTHER MANAGEMENT CONSIDERATIONS

V-1 The responsibility for defense telecommunication activities should be under the staff supervision of the Assistant Secretary of Defense (Telecommunications). The Assistant Secretary of Defense (Telecommunications) should be directed to review all defense communications activities with the goal of eliminating inefficient duplication; specifically, for example, those telecommunications activities of the existing Air Defense Command (ADC) which can be effectively merged into other telecommunications operating activities of the Military Departments. The Assistant Secretary of Defense (Telecommunications) should also be directed to assure that each major element of the telecommunications community in the Department generates professionally planned and managed education, training and career development programs for its engineers, researchers and managers, both civilian and military.

V-2 The responsibility for all existing and future defense long-haul transmission systems, regardless of their current or intended use, should be assigned to the Defense Communications Agency as part of the Defense Communications System, except those vehicular and air transportable types when held as contingencies or while in temporary deployment for active combat support. In addition, the Defense Communications System (DCS) should be redefined so as to include base, post, camp and station telecommunications in the United States and garrison (permanent) type installations overseas. The DCA should also be assigned the fiscal control of DCS elements. The communications and electronics officers of the Unified Commands should be under the operational and technical supervision of the Defense Communications Agency.

V-3 The Air Force Ground Electronics Engineering Installation Agency (GEEIA) and the telecommunications activities of the Strategic Air Command (SAC) should be merged into the Air Force Communications Service (AFCS).

V-4 The responsibility for defense automatic data processing should be under the staff supervision of the Assistant Secretary of Defense (Telecommunications). The Assistant Secretary of Defense (Telecommunications) should: (a) take the necessary steps to enable the Department to develop an in-house capability for ADP hardware systems and software systems design needed for proper management; (b) review proposed ADP activities and monitor and evaluate on-going activities with respect to effectiveness of the utilization of resources; (c) test through model programs the feasibility of computer services/centers which could standardize and centralize the ADP system by functions (such as the major Commands) and/or geographically, with the intent of determining both short-and long-range ADP capability objectives; and (d) develop a training program for ADP specialists and a career plan for ADP personnel.

V-5 The procedures governing the justification and selection of computers should be revised to require a statement of ADP equipment capability as opposed to specification of intended application of the equipment.

V-6 The Secretary of Defense should delegate to the Deputy Secretary for Evaluation the authority to establish and enforce Department of Defense policies and procedures which make it possible to account for all contract studies to reduce duplication, assure relevance, and enhance quality. Specifically, the Deputy Secretary for Evaluation should:

- (a) Establish procedures to review and validate requirements for contract studies.
 - (b) Establish a central control record of contract studies to include subject, purpose, cost, significant finding and an assessment of the quality of the work and the utility of the product.
 - (c) Establish procedures for contracting for studies to provide adequate safeguards to assure that the Department gets a product that is relevant and responsive to the requirement; assure a close working relationship between the contracting officer and the technical representative; and develop criteria for selecting contractors that will assure competent and objective support to the Department.
 - (d) Review each Federal Contract Research Center sponsored by the Department of Defense to determine on an individual basis which should be continued with substantially their present form and mission, which should undergo significant changes, and whether any may have outlived their usefulness as FCRCs. The study should also develop the means to make collective FCRC capabilities more widely available to Department of Defense sponsors.
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V-7 The Equal Employment Opportunity policy direction and guidance responsibility within the Defense Department should be under the staff supervision of the Deputy Secretary for Evaluation. A restudy and clarification of the requirement of the Office of Federal Contract Compliance and the penalties for noncompliance for the guidance of the Defense Contract Audit Agency and Defense Contractors should be obtained.

V-8 The implementation of the contract compliance program within the Defense Department should be assigned to the Defense Contract Audit Agency (DCAA). In order to fulfill its assigned annual review of contractors facilities, additional professional and clerical personnel should be assigned to DCAA.

V-9 Procurement policies should be so formulated as to insure that there is no impediment

to participation by prospective contractors with the capability to perform, regardless of the race or size of the prospective contractor, or the period which the prospective contractor has been in business.

V-10 An immediate evaluation should be directed by the Secretary of Defense as to the extent of minority employment and promotion in all areas of the Department; each administrative unit should be required to make frequent periodic reports to him of their progress in both qualitative and quantitative terms. The Secretary should personally review the trend of employment of minority employees at all levels, let it be known that he is personally doing this, and record with each unit his satisfaction or dissatisfaction with the progress made.

The Secretary should direct his staff to:

(a) Review the field of complaints in the military and civilian areas and the procedures set up for fair and expeditious dealing with them, and

(b) Establish an on-going affirmative action program to discover the reasons for complaints, remove them, and make sure that minority groups are in fact recruited and promoted on an equitable and nondiscriminatory basis.

Job descriptions should be established for equal opportunity personnel at all appropriate grade levels, and a career or progression ladder should be provided for equal opportunity personnel with appropriate grade structure commensurate with other priority programs.

V-11 Executive Orders and Department of Defense Directives with respect to matters of equal employment opportunity for Department of Defense military personnel, civilian employees and contractors, as set forth in the existing comprehensive programs for insuring equal opportunity, should be administered from a sufficiently high organizational level in the Department to assure effective implementation, and the procedures for assessing penalties for non-compliance should be reviewed and clarified.

V-12 The Department of Defense, although not expected to act as enforcement agency of national labor laws, should support any appropriate action that would permit more flexibility in such matters, so that contracts could be withheld from companies that have been determined by appropriate authority to have flagrantly, deliberately, and repeatedly violated expressed national labor policy. At the same time, the Department should not use its contracting powers to help or hurt any party involved in a union representation question, a collective bargaining agreement, or an inter-union dispute.

V-13 The objective of the Department of Defense, in determining wage rates for its own employees around the country, should be to have its rates fair and competitive with the

wage rates of private employers for employees of comparable skills.

V-14 The Department of Defense should explore the possibilities of its making a contribution to community betterment through the expansion of junior ROTC and by making available unused areas on defense installations in or near central city areas for recreational use of minority youth.

V-15 A careful study should be made as to how the successful techniques developed by our armed forces in Vietnam to help rebuild communities could be applied to working with minority and other disadvantaged groups in this country, particularly in areas near military installations in central city and distressed rural areas.

V-16 The Assistant Secretary of Defense (International Security Affairs) should be assigned staff supervision responsibility for matters relating to the Panama Canal Zone and the Ryukyu Islands, in lieu of the Secretary of the Army.

V-17 The Secretary of Defense should appoint a General Advisory Committee to the Secretary, which is widely representative, to serve without compensation, but provided with a small staff to:

(a) Advise the Secretary of Defense, at his request, on matters concerning internal management of the Department that could be of special public interest, such as: (1) opening, closing or consolidating military installations; (2) community relations; (3) labor relations; and (4) contract compliance and equal opportunity;

(b) Serve as a vehicle through which matters included in the preceding paragraph could be brought to the attention of the Secretary of Defense by interested parties from outside the Department.

V-18 A procedure should be authorized by statute whereby all or part of the proceeds from the disposal of existing military installations can be used for construction of a new installation or for expansion of an existing one when such construction or expansion has been authorized by Congress. These transactions should in no way affect the normal general appropriations.

V-19 The responsibility within the Pentagon for determination of criteria for various levels of physical security to be provided for organizational elements should be consolidated under the staff supervision of the Assistant Secretary of Defense (Intelligence).

CONSOLIDATED LIST OF RECOMMENDATIONS

CONFLICTS OF INTEREST

VI-1 Conflict of interest statutes (18 U.S.C. 281; 18 U.S.C. 283; 5 U.S.C. 5532; and 37 U.S.C. 801(c)) should be reevaluated in order:

- (a) To achieve consistency of application, equity of application, consistency of coverage and harmony of sanctions; and,
 - (b) To reorient such statutes toward prohibition of and punishment for specified undesirable acts rather than toward prior restraints.
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VI-2 Consideration should be given by the Secretary of Defense to establishing a Defense Board of Ethics to provide advisory opinions upon request to past and present military and civilian members of the Department of Defense and to defense contractors on the propriety of specific activities.

VI-3 In order to develop a more effective standards-of-conduct program applicable to current officers and employees of the Department, consideration should be given to:

- (a) Amending 18 U.S.C. 202(a) to provide that the terms "officer" or "special Government employee" shall for the purpose of Chapter 11 of Title 18, United States Code, include enlisted personnel occupying certain positions of trust as designated by the Secretary of the military department involved.
- (b) Amending 18 U.S.C. 202 (a) to provide that NAF employees as described in 5 U.S.C. 2105(c), shall be considered employees of the United States for purposes of Chapter 11 of Title 18 United States Code.
- (c) Further amending 18 U.S.C. 202(a) to provide that a Reserve officer serving on extended active duty or active duty for training will be considered a special government employee only if he has been ordered to active duty for a period not in excess of 180 days, and that all other Reserve officers serving on active duty will be considered full-time government employees.
- (d) Amending 10 U.S.C. 1033 to provide that it applies only to Reserve officers ordered to active duty pursuant to 10 U.S.C. 672(a), 673, or 673a (i.e., "involuntary" orders to active duty), and amend section 4(f) of the Military Selective Service Act of 1967 to limit its application to individuals inducted into an enlisted status.
- (e) Repealing 37 U.S.C. 801(a) which applies to active Regular Navy and Regular Marine Corps officers.
- (f) Amending the Internal Revenue Code to define divestments required of

prospective Presidential Appointees as involuntary conversions, the proceeds of which divestments may be reinvested by the appointee within a time period which terminates after leaving office without there being a taxable transaction, but with the taxpayer's basis in the property so divested to constitute his basis in the reinvestment.

VI-4 The Secretary of Defense should consider making the following changes to Directive 5500.7:

(a) Rewriting the directive in the more lucid manner exemplified by AR 600-50 and AFR 30-30.

(b) Providing that re promulgation by the military departments and their subordinate commands will be limited to republication of the Directive in its entirety with the permissible addition by those agencies only of clarifying terms.

(c) Providing minimum standards for the effective and relevant dissemination of standards-of-conduct rules.

(d) Providing that the rendering of advice on standards-of-conduct matters shall be accomplished by deputy counsellors as much as possible.

(e) Requiring the designation by each command of a person of adequate authority who shall have overall responsibility for administration of the standards-of-conduct program.

(f) Providing that the supervisor will retain a copy of the confidential statement of employment and financial interest submitted by the employee or officer covered in the directive and will forward a complete job description to the deputy counsellor along with the employee's DD Form 1555.

(g) Removing the civil service and military grade and rank limitations on submission of DD Form 1555, so that applicability is determined solely by job duties and responsibilities.

(h) Specifically providing that each member and employee will be given a simple and comprehensible summary of the standards-of-conduct rules upon acceptance of employment or entry on active duty.

(i) Limiting the "read and sign" requirements to personnel above the grades of GS-13/major or lieutenant commander.

VI-5 The Secretary of Defense should cause to be prepared and distributed a manual, to be continuously updated, for all the deputy counsellors containing digests of relevant opinions of the courts, the Attorney General, the Civil Service Commission, the Comptroller General, the Judge Advocate Generals, and the General Counsels of the Department of Defense and the Military Departments pertaining to standards of conduct. Prepare and distribute a short movie dealing with standards of conduct and require annual attendance for the first three

years of service or employment in a job, or encompassing responsibilities, designated in Directive 5500.7 to necessitate filing of a confidential statement of employment and financial interest. Prepare and distribute posters calling attention to proper standards of conduct.

VI-6 The following steps should be considered among the means to insure the more effective investigations on conflict-of-interest situations:

(a) Expand Army procurement inspections to the scope of Air Force investigative surveys, and institute such surveys within the Navy and the Office of the Secretary of Defense.

(b) Require the Navy to coordinate its investigations into procurement fraud and standards of conduct with local judge advocate offices.

(c) Require the Army to submit its reports of investigation to the Department-level office having staff interest in the subject matter.

(d) Require that the Army and Navy institute procurement fraud courses including coverage of standards of conduct for investigators similar to that conducted by the Air Force.

(e) Require that each Service create a record-keeping classification for standards-of-conduct investigations undertaken.

VI-7 To better insure against conflict-of-interest incidents in connection with the Plant Cognizance Program, the Department of Defense should:

(a) Limit tours of duty of civilian and military personnel stationed at defense contractors' plants to three years.

(b) Explore the possibility of proposing legislation which would prohibit a military or civilian member or employee assigned as plant representative from accepting employment with the company at whose plant he was last stationed for a period of three years from the termination of active service.

VI-8 The following actions with respect to the employees of nonappropriated fund (NAF) activities should be considered:

(a) Retaining a professional management study group to review the operating procedures of the open mess system and other locally controlled NAF activities.

(b) Amending 18 U.S.C. 202(a) to provide that NAF employees, as described in 5 U.S.C. 2105(c), shall be considered employees of the United States for purposes of Chapter 11 of Title 18.

(c) Modifying the exemption of enlisted personnel from the conflict-of-interest law (Title 18) to authorize the service Secretaries to designate categories of enlisted jobs subject to that law.

(d) Abolishing the GS-13 equivalency level cut-off for filing financial disclosure statements under Department Directive 5500.7.

(e) Improving the dissemination of standards-of-conduct rules in NAF activities as recommended generally for current Department of Defense officers and employees.

(f) Holding administrative inspections of subordinate NAF activities in addition to regularly scheduled audits and personal inspections.

VI-9 The following actions with respect to Consultants should be considered:

(a) Clarification of the applicability of the disclosure requirements and of the necessity for determining the absence of a conflict.

(b) Initiation by the Department of Defense of on-site inspections to establish administrative compliance with the restrictions upon Consultants generally and with special emphasis upon those in positions of high level research and development.

(c) Revision of Department of Defense Directive 5500.7 and the implementing regulations concerning Consultants to require:

(1) Supplementary statements reflecting changes in financial interests under certain conditions.

(2) A redetermination of the absence of conflict of interest whenever the validity of a prior determination is jeopardized by reassignment.

(d) Requiring contract financial disclosure statements from the personnel of consulting firms where deemed necessary in the public interest.